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THE

Country GUIDE

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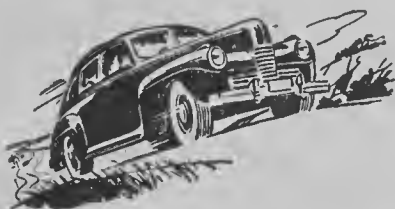
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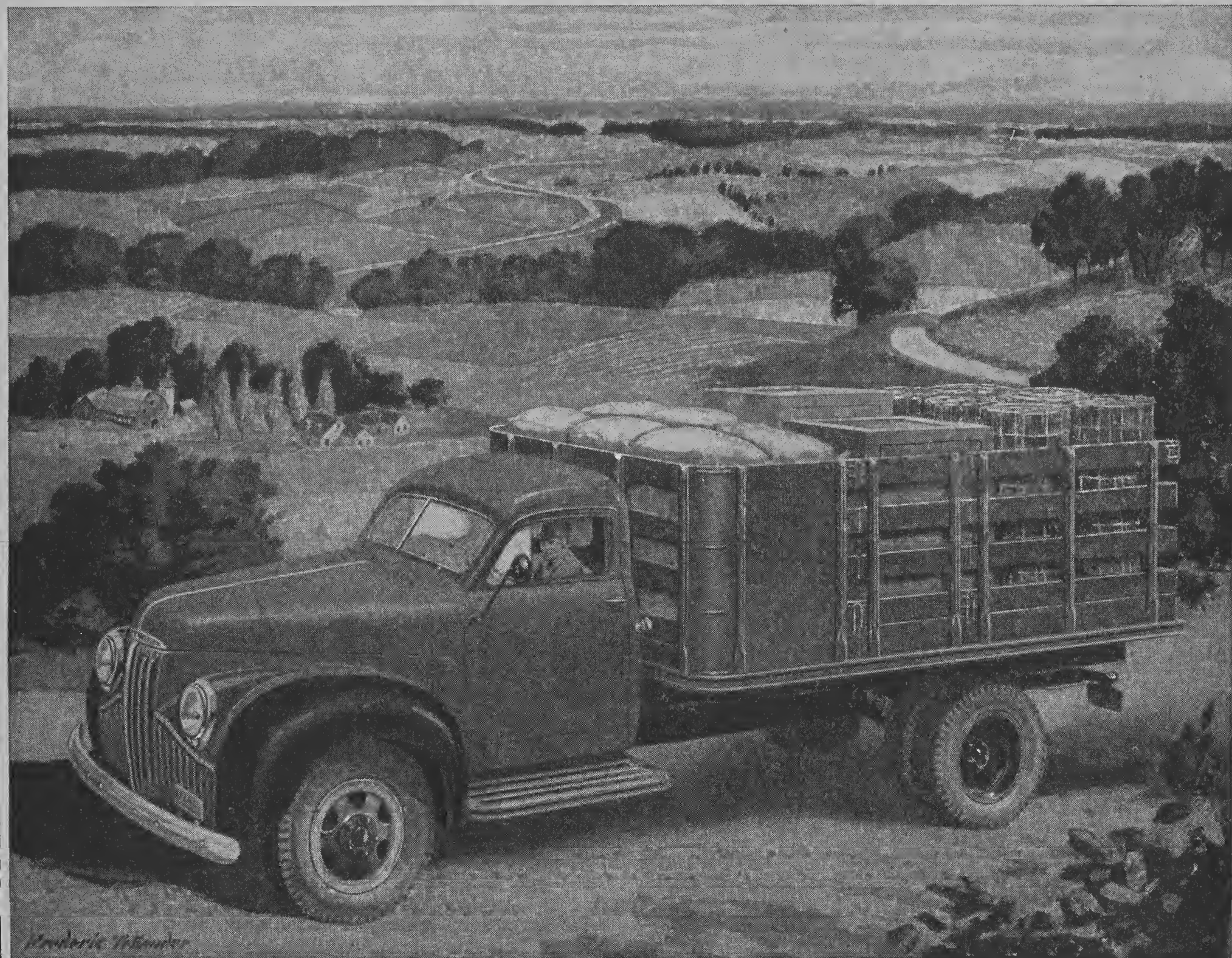
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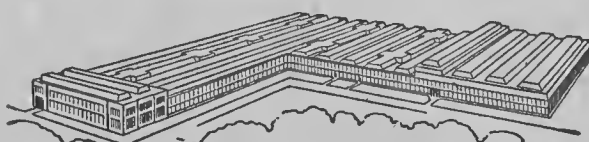
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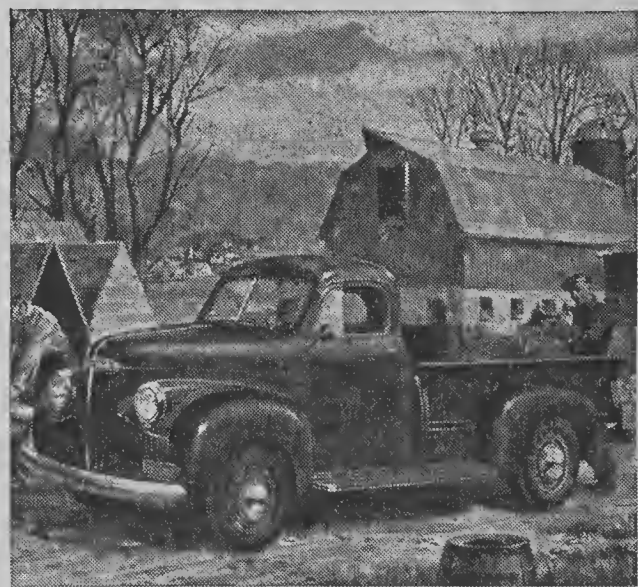
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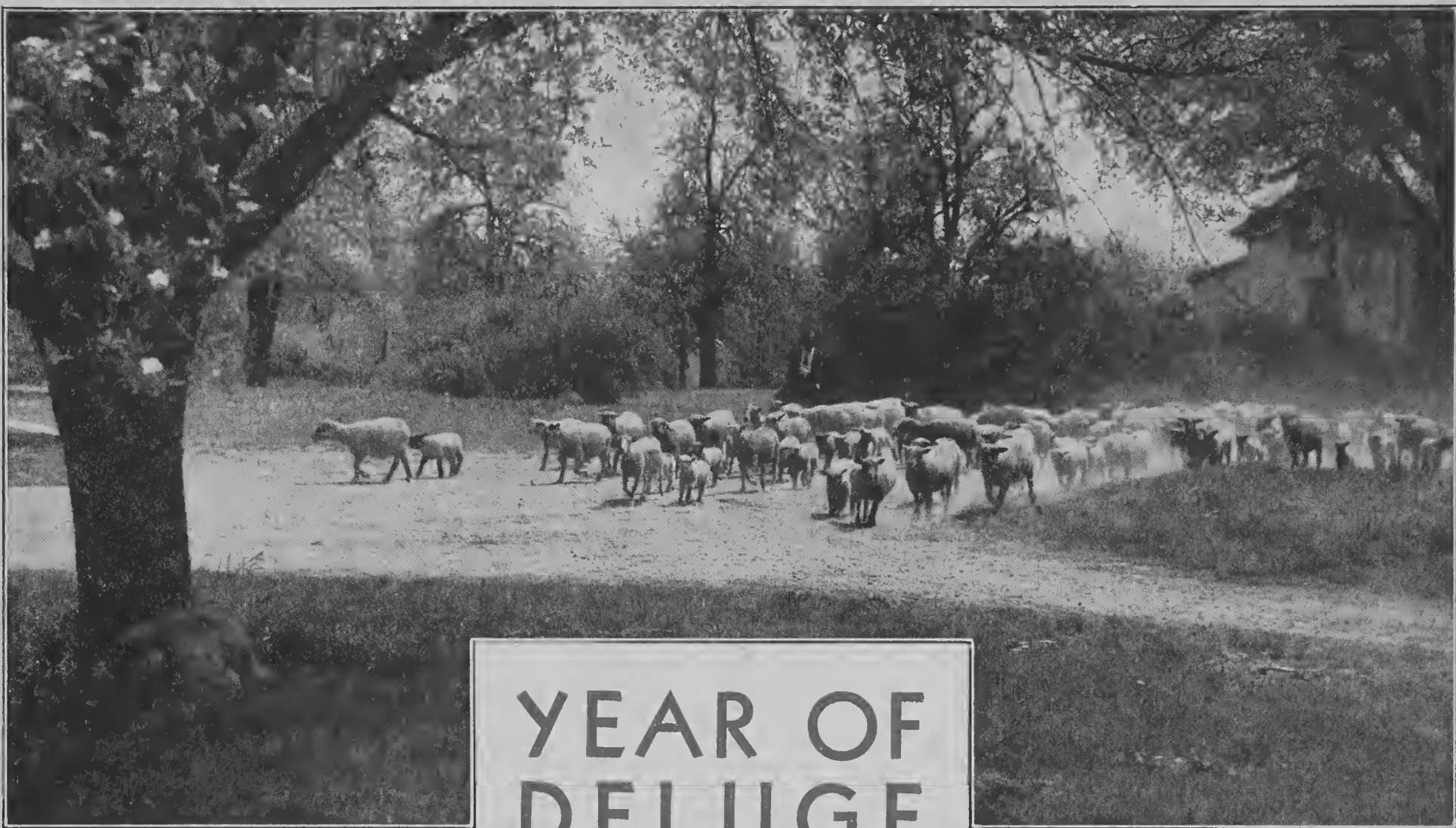
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YEAR OF DELUGE

Heavy losses over all eastern Canada from excessive rains and delayed seeding will jeopardize feed supplies in the coming year

had to be flown to them. It was the eastern edition of the winter that overwhelmed the West.

When spring came, the snow was taken off by rain. Then came those floods we read about. But having removed the snow, the rains continued. They were cold rains which sometimes turned to snow, which required more rain to remove it. May Day came, when seeding is sometimes completed on light land in early districts. Still it rained. May 15 came and went with no let up. May 24 arrived, when grain is generally in the ground. This year it was still in the granary. June 1 was passed when corn and roots should be seeded and beginning to show through the ground. Still it kept on raining. If the wind shifted and the rain stopped for a few hours it didn't mean that the skies would soon clear. The clouds had run out of rain and were going back for more. Even the ducks became dejected. If there were any sun worshippers east of the lakes, they had to worship him in absentia and take a soaking into the bargain.

THEN came June 3, with that crop report. Imagine the condition of Quebec in particular, with only five per cent of the sowing done. But the next week, on June 12, at a meeting of the Canadian Federation of Agriculture, called to discuss the emergency, Quebec delegates reported that scarcely a stroke of work had been done on the land since the report had been issued. By this time the newspapers were sending reporters out over the all-weather highways and headlining the disaster that was looming up. The reporters were coming back with harrowing stories and pictures of duck ponds where barley and oats should have been waving in the wind.

As this is written, about the middle of June, the rains have abated and are coming only spasmodically. Old Jupiter Pluvius is fumbling around trying to get hold of the right levers again. The rivers are still in flood, the trees along their banks still standing with the water well up on their shins. The linoleum on summer cottage floors is rotting under a foot of it. But the trees will survive and if the summer cottagers were farmers they would have something more important than linoleum to worry about.

What can be done about it? First, of course, the farmers are continuing to sow wherever possible, taking a long chance on getting a late crop should

the latter part of the season make amends for what it did to them in the early part. If it doesn't, they can cut the crop for roughage. They could sow late crops: Soybeans, millet, buckwheat, but what would they use for seed? It is too late for husking corn, which should be sown in May, but they could still grow a crop of ensilage corn. A forgotten art in these parts, summerfallowing, will likely be revived on a large acreage. There will probably be sufficient fodder but as for grain well, the eastern farmer is praying for a whale of a crop of oats and barley on the prairies this year and including a petition that next fall there will be lots of boats and next winter lots of freight cars available to move the oats and barley in their general direction.

Here is the picture, as painted by the Canadian Federation of Agriculture. The figures are for Ontario, Quebec and New Brunswick only:

	Oats	Barley
Total yield, three provinces, 1946 ..	112,856,000 bus.	13,826,000 bus.
Total acreage, three provinces, 1946 ..	3,287,000 acres	429,000 acres
Estimated 60% acreage for 1947..	1,972,000 acres	257,400 acres
Est. 75% on this reduced acreage would mean 45% of 1946. 45% of 1946 yield would be ..	50,785,200 bus.	6,222,000 bus.
Shortage would then be ..	62,070,000 bus.	7,604,000 bus.

THAT is, the farmers of these three provinces will probably need 62 million bushels more oats and over 7½ million bushels more barley than they took last year, assuming that their needs will be about the same, which is a fair assumption.

Now the average annual shipments of feed grains from the West to Ontario, Quebec and New Brunswick for the last three years were: Feed wheat, 21,840,432 bushels; oats, 43,002,121 bushels; barley, 31,368,452 bushels. They expect to be able to get the usual quantity of feed wheat and they may, though Europe wants bread and wants it badly. Bread from any old kind of wheat looks good to the eye and lies well on the stomach of a starving populace.

But eastern dairymen, hog and beef cattle feeders and poultry keepers are apprehensive about the supply of the other two grains. Instead of the three-year average of 43 million bushels of oats, 105 million bushels will be needed. Instead of the three-year average of something over 31 million bushels of barley, 39 million bushels will be required. The grand total of western grown oats and barley needed from this year's crop will be of the order of 144 million bushels, instead of the usual 75 million bushels or less. The shipments will have to be approximately doubled if that amount can be spared and if the boats and freight cars are available to move it. If the grain and boats and cars are not available, then there will be just that much less [Turn to page 39]

By R. D. COLQUETTE

EASTERN Canada is headed for its worst crop disaster since grain was cut with the cradle, bound by hand and threshed with the poverty stick. On June 3 the Dominion Bureau of Statistics officially reported that in western Ontario little more than 50 per cent of the intended acreage of coarse grains had been planted. In eastern Ontario only from five to 20 per cent of the seed was in the ground. But Quebec was the greatest sufferer of all, with only five per cent of the seeding done. In New Brunswick the farmers had seeded but 40 per cent of their grain and potato acreage.

A week later I kept my eyes glued to the countryside while travelling from Sherbrooke, Quebec, to Ottawa. From nine o'clock on, in the morning, herds of cows could be seen lying in the lush grass chewing the cud of contentment. They were not worrying, for cows don't worry about the future. The meadows, though showing the effects of wet feet, gave promise of a fair hay crop. The cows had little cause for worry about next winter's hay ration either.

But the crop land told another story. To look at it, and forget the grass and the leaves, it might have been the last week in April instead of the middle of the second week in June. The farmers, far from contented, were on the land, for it hadn't rained in a couple of days and the day before a new heat record for June had been hung up, with the thermometers hovering between 90 and 100 in the shade of the old apple trees. But these farmers were just making a start. In most cases, with the most important of their annual jobs, for without a seedtime there can be no harvest. Most of them were riding disc harrows or cultivators on fall plowing and working, not between the fence rows but between the mud holes. A few were plodding behind seed drills. Surprisingly few tractors adorned the landscape. Most of the men were driving two-horse teams, with an occasional three-horse outfit, so that progress was slow despite the lateness of the season. One man was seen with a shovel, laboriously digging a ditch from one water filled dead furrow to another, presumably to empty one of them, which one I couldn't tell from the train window.

For nine months eastern Canada had had abnormal weather. Last year they had a glorious fall down there. For weeks on end the sun shone through a languorous haze. But farmers always suffer when abnormalities of weather arrive. In many sections wells were dry or low. Their owners would have been better off with less sunshine and more of the rain that they would have gladly spared in the spring. When winter struck it exacted a further toll in payment for sunny autumn skies. It came early and stayed late with heavy snow falls and furious storms. Oldest inhabitants had to dig deep into their memories to recall anything like it. Jokesters told of having to dig down through 10 feet of snow to oil their windmills. Some small centres were so isolated that food

Is a Horse Famine Coming?

By J. W. G. MacEWAN

A survey of Manitoba farm horses shows that it could happen here

HOW many western farms will become horseless? If the farm horse is not obsolete, does it have sufficient future to justify more attention to breeding? What is the average age of farm horses at the present time? Do new conditions call for changes in type? How many farms will require saddle horses? These were some of the questions for which answers were sought in a recently conducted survey. The 200 farms from which detailed reports were obtained represented all sections of Manitoba and seemed to offer an approximate cross-section in point of location, soil type and size of farm.

The reports were analyzed systematically by Professor Solomon Sinclair of the Department of Agricultural Economics at the University of Manitoba.

It is common knowledge that horses, which did nearly all the heavy work in the pioneer years, have been in retreat before the advances of mechanical power since about 1921. The modern tractor is maneuverable, long wearing, and economical; and it has strong appeal, especially among those of the younger generation in Canada's farming country. The horse population of Canada fell slowly but steadily from 3,610,000 in 1921 to 2,396,000 in 1946. The decline continues and the loss of horses in the past year may exceed that of any other year. In addition to a rising death rate, nearly 50,000 horses were slaughtered at the Swift Current and Edmonton horse abattoirs in 1946 and as many more western horses passed through Winnipeg being shipped to Europe, to eastern Canada and to the United States.

But the demand for farm horses declined faster than the horse population declined. Low prices produced pessimism and jitters and breeding was almost suspended. A few horsemen attending horse breeders' meetings proclaimed their faith in the return of the draught horse, but many others concluded that the farm horse was "washed up." The horse industry is still suffering from surplus and much of the pessimism about the horse's future stems from the result of such surplus. On the 200 Manitoba farms selected, more or less at random, there were, on the average, 5.2 horses per farm with 1.2 per farm marked as surplus. As long as there is surplus, some measure of depression can be expected. The apparent conclusion from this group of farms is that an average of four horses per farm is presently considered adequate. In many cases, one of these is a saddle horse.

There is nothing to indicate that the horse will regain its former position of supremacy in the realm of farm power, but notwithstanding changes which are taking place, it seems clear that the farm horse has a future, especially where mixed farming is practised. Indeed, with the lapse in horse breeding and the advancing age of horses on farms, it becomes apparent that horses may decline to a point below optimum requirement before replacements are available.

THERE has been some guessing about the probable average age of horses on western farms. On the 200 widely scattered Manitoba farms from which reports were obtained prior to the first of March, 1947, the average age of all horses was 9.4 years. With the coming of spring, every horse would have another birthday and since very few foals are arriving in 1947, it may be concluded that the average age is now 10 years. The death loss can be expected to accelerate in a population when the age average is so high.

The average age of horses on the farms in the prairie areas was found to be greater than in the transition or park areas. Likewise, the horses were older on the large farms than on the small farms and older in districts which have heavy soil. In other words, the average age of horses is greatest where mechanization has made its biggest advances.

Power ideals vary somewhat, according to size of farm, vegetation zone and soil type. When asked to

Continued on Page 64

BRINGING IN THE SHEAVES

By MANLEY CHAMPLIN

A review of harvesting methods for various crops, with comment on the use of the binder, swather and combine

HARVESTING methods have been undergoing many changes in recent years. The binder has given way on many farms to the combine, or to the swather followed by the combine; and this has resulted in infinite saving of labor. It has also given rise to new problems, due to changeable weather conditions in different seasons, which increases the risk to the crop that is left to ripen fully before combining. The old rule of beginning to harvest as soon as the crop of wheat, barley or oats had reached the stiff dough stage applied very well to the use of the binder, but does not apply to the use of the combine. The main point that was emphasized by the experts who were sent here with the first combines was that the crop must be fully ripe before harvesting.

To overcome the difficulties due to uneven ripening caused by soil variations, and to avoid the risks due to leaving the crop to ripen fully, the swather has found favor and has been widely introduced. It enables one to start cutting at least as early as could be done with the binder, thus avoiding losses due to sawfly damage, or to storms that lodge the grain during the ripening period.

Attempts have been made to determine the best method of harvesting in some localities, but after all, the decision rests with the individual farmer. He, only, can decide whether he is willing or able to take the risk involved in leaving the crop to ripen for straight combining in order to save labor, or prefers to reduce his risk by using the binder or swather, to make an earlier start. Some follow all three methods, using the binder for their oats in order to save the straw in the best form for feeding, then using the swather for their wheat and barley in order to make an early start, and finally finishing with the combine for the fields that have fully ripened.

BINDING is still favored for harvesting barley for the malting trade. The barley is harvested when the grains have reached the stiff dough stage. The bundles are set up in round stooks, using some care not to make them too large. In some districts that are not subject to strong winds, the stooks can be capped to good advantage, but over a good portion of the prairies the winds will blow the caps off, so it is not of any advantage to put them on. The grain in the bundles that have fallen to the ground will be weathered more than that in the standing sheaves.

A good separator man to give thorough care in adjusting the threshing machine so that cracking the grain will be avoided, is a prime essential in handling this crop. A cracked kernel is a lost one to the malt makers, because the grain must be in a condition to sprout quickly and evenly in order to make good malt. A cylinder with worn bearings permitting end play, or a badly adjusted concave, are among the principal causes of cracking.

Sweet clover for seed can be harvested best with a binder. This crop never ripens evenly, so it is necessary to cut it when about half or two-thirds of the seed pods have turned brown. At this stage they break off easily and a strong wind storm may result in nearly all the ripe seed falling to the ground. Timely harvesting is therefore very necessary. The bundles are set up in long stooks, two by two, like green oat sheaves, and left long enough to dry out well for threshing.

Alfalfa for seed can be handled in much the same way, except that the crop can be left standing until nearly all of the pods have turned brown. They do not break off as readily as those on the clover. Sometimes a frost occurs before the pods have all ripened. In that case the green pods produce shrivelled seed, which is light and can be blown out of the ripe seed when threshing and cleaning the crop.

Rye is another crop that shells easily when ripe. While it has been combined successfully in some instances, those who like to avoid

risks still use the binder. They cut the crop when the grains are in the stiff dough stage and set the bundles up into stooks of either the round or long type, as preferred.

As mentioned above, oats are often harvested with a binder in order to save the straw for feed, or to use the whole sheaf for feed, without threshing. This method has the further advantage of avoiding losses. Either the round or long type of stook is used and caps are generally omitted.

There is a tendency to increase the use of the swather to reduce the risk of leaving the crop standing until it is fully ripe. This implement does satisfactory work with wheat and other grain crops, including flax. In districts where wheat stem sawflies have been plentiful, many farmers found that they could save a good deal of the wheat that had been injured by this insect and was commencing to fall down. They started swathing even before the wheat had reached the stiff dough stage and succeeded in saving a good deal of the crop that would otherwise have been lost.

A FARMER in the Saskatoon district who had a large acreage of flax had a big field snowed under after swathing it. He picked this up with a combine in the spring and, strange as it may seem, he threshed more flax per acre from this field than he had obtained from an adjoining field that was saved in the fall. This instance is mentioned to indicate something of the weather resisting qualities of flax swath, rather than with any idea of recommending the practice of leaving the swaths out over winter.

As with the binder, the normal time to start swathing is when the grains have reached the stiff dough stage, but under emergency conditions experience has shown that good results have been obtained by starting a little earlier and thus saving crop that might otherwise be lost.

After the crop has dried sufficiently in the swath, it is picked up and threshed with the combine.

Except for the risks involved in leaving the crop standing until fully ripe, the combined harvester and thresher, or combine as it is usually called, furnishes an ideal way to harvest. The saving of labor and the convenience of taking the crop off at one operation are advantages that appeal to many farmers.

In addition to harvesting wheat and other grain crops, field peas and alfalfa seed have been successfully saved with combines under certain conditions. For example, the alfalfa seed grown on the grey soils in northeastern Saskatchewan has been produced on plants that are shorter and less rank in their growth of leaves and stems than alfalfa grown on black soils. Under such conditions, the combine has been used with satisfactory results. On the other hand, at Saskatoon, the crop ripens too unevenly and there is too much green stuff to handle with the combine.

Brome grass seed and sunflower seed are also harvested with combines. The sunflower heads make such a racket going through the machine that one would think the machine was being wrecked, but no unusual or serious damage has been reported.

Rape seed is a relatively new crop that has been combined successfully. In order to reduce shattering losses, the speed of the reel is reduced to about one-half or two-thirds of that used for wheat. Other mechanical adjustments such as wrapping the reel slats in sheep skin, have been reported favorably.

On the whole, the combine seems to be gaining in favor and it is really surprising to learn of the number of uses that have been found for it by ingenious farmers and their sons. If we could be sure of favorable fall harvest weather, there would be even greater increases in straight combining and our title might become completely out-dated. But weather being what it is, there are still many places where the binder and swather can and will be used to advantage.

IN THE WAKE OF THE POWER LINE

Rural electrification promises to transform farm life and practice in Manitoba

By MARION R. McKEE and P. M. ABEL

MANY wise people have become concerned about the drift from the land. Few of them have presented any workable suggestions for lessening it. In Manitoba they have formulated about as good a plan for "keeping 'em down on the farm" as we are likely to discover in our time. Let Hon. D. L. Campbell, provincial minister of agriculture, outline the inspiration that came to him and his colleagues.

"As we see it," says he, "we have to take the advantages of town living to the farm as far as that can be done. The drudgery of housework, the drab appearance of many of our farm homes, and the lack of amenities like running water have been big factors in driving ambitious and enterprising families to the city. By an extensive network of power lines woven across the province we can in a comparatively short time, bring electricity to a large majority of farm homes.

"Electricity is the magic key which unlocks the doors to modern living and working standards. Laborious work is rapidly passing out of industry. A few cents worth of electric current will do more back work in a day than the strongest man. The application of electric power to farm work will achieve the same result that it has in industry. Nothing that this government could do would contribute as much to comfortable and satisfying rural life as the province-wide extension of power lines. A visit to the Manitoba farms which have been electrified since our program took shape will dispel any doubts."

But it took a lot of planning to make this vision of rural electrification a reality. Farms in Manitoba number 1.3 to the mile. No administration in the world has ever faced the expense of completely electrifying such a sparsely populated country. It is a far more formidable undertaking than in the case of fortunate Ontario, densely peopled and studded with power sites.

When farm electrification in Manitoba was first conceived, the province already had a Power Commission, established in 1919, whose function was to buy large blocks of current from the companies which develop it on the Winnipeg River, primarily for use in the capital, and to distribute it to a number of the larger towns and villages. To realize its broader ambitions the government had to follow two distinct courses: Further extend the Power Commission lines, and to evolve a policy which would make current

from these lines available to farmers at terms both attractive to users and profitable to the Commission.

Steadily the network has been spread. It has reached every corner of the province. Two hundred and twenty-five towns and villages are now served by hydro power developed 400 miles away from the most distant customer. The avowed purpose now is to push extension to every hamlet with 20 people or more within five years.

Farm distribution began in the closing months of the war. The \$35,000,000 program began with the aim of reaching 1,000 farmers in 1945, and an increasing number every year for 10 years, by which time 43,000 farms would have been electrified out of the 58,000 in the province. Eventually the number may reach as high as 50,000 farms served.



The electrified farm kitchen of Mrs. Walter MacDonald, Franklin, Manitoba.

Shortages of equipment made the goals set for '45 and '46 unattainable. The first bottleneck was the supply of poles. The Commission estimated that it would require 70,000 poles a year for 10 years. Apart from their increased cost, the standard red cedar post simply cannot be obtained in required quantities. A little experimentation demonstrated that jack pine poles cut in Manitoba's own forest reserves and completely treated at the St. Boniface plant, will last longer and cost less than the poles brought from the coast, besides adding an item of \$630,000 to the income of the province.

WIRE cable and pole hardware presented another crippling bottleneck. The shortage of trained labor was a positive headache. Had poles and fittings been procurable there would not have been a labor force big enough to erect them. D.V.A. organized a six weeks' course for returning veterans which has paid big dividends. In some cases, experts have given organized instruction to farmers and their sons so that house wiring could proceed regardless of the shortage of trained labor.

Anyone who has tried to buy electric appliances since the war knows the state of that market. Distributors take orders, but at the commencement of this Manitoba enterprise not more than 30 per cent of the orders taken were delivered in reasonable time.

Notwithstanding all these difficulties construction has been pushed along. As this is written, about 3,000 farms are enjoying the benefits of power line electricity and the rate of expansion is growing monthly. The 1947 program calls for the expenditure of \$4,000,000 and the extension of service to 3,500 more farms in 26 blocks.

The Manitoba plan is to bring the current to the farmer's yard without cost. The farmer's first expense is to get his buildings wired. On large steadings with old stone structures this may reach an impressive sum. On 20 representative Manitoba farms it averaged \$249.72 per farm.

The charge for current is eight cents per kilowatt hour for the first 50 kilowatts; two cents per kilowatt

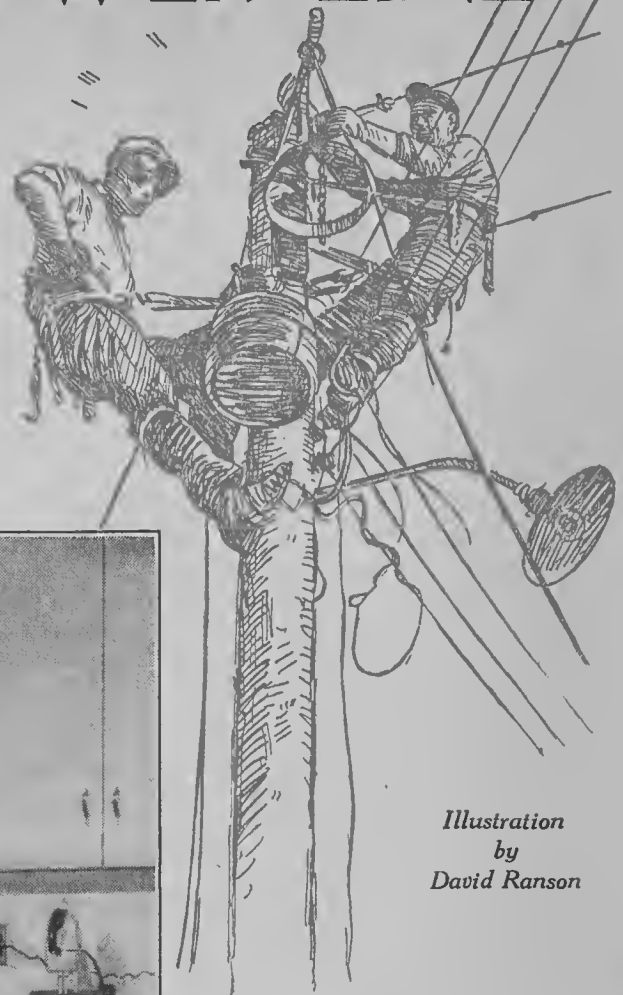


Illustration
by
David Ranson

hour for the next 100 kilowatts; with a run-on rate of one cent per kilowatt hour for all power used in excess of the first 150 kilowatts per month. This last rate is cheaper than what power is retailed to city customers. The more a farmer uses, the less his juice costs. The minimum monthly bill is \$3.60. On a fully electrified farm like that of Walter MacDonald's at Franklin, where 18 motors help burn up the current, the bill runs up to eight or nine dollars monthly.

The farmer binds himself in one other respect. He must agree to buy at least \$150 worth of electrical appliances from the commission or some other source. The commission is not interested in pushing the sale of appliances but it must promote the sale of current. The cost of bringing the power to the farm averages about \$700 per farm. It is an expense that would not be warranted if farmers confined their usage to house lighting and paid minimum monthly bills.

Have farmers responded to the opportunity? The answer to that will be found in the continuous flow of petitions which go over the big desk of W. D. Fallis, the Neepawa boy who has become general manager of the power organization. Not all these applications for service can be satisfied. The expense of bringing power to isolated farms would be prohibitive, unless low tension lines already pass by the farm borders on their way to a more distant block of customers.

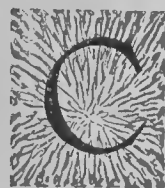
The Commission originally set out to find blocks in which 80 per cent of the residents would sign up. That target proved a little too high to shoot at. Blocks with as low as 65 per cent sign-up are now being accepted, with a minimum number of 40 farmers in the smaller blocks.

BEFORE operations actually commenced, some apprehension was felt as to the attitude of farmers who had already installed wind driven or Diesel electric plants, and as to the ability or willingness of tenants to put up funds for this kind of improvement. Fears have been set to rest on both counts. The best booster for the power line has proved to be the man who has tasted the benefits of the limited supply of electricity which he has been able to generate from a private plant. Especially so when they discover that wiring installed for a 32-volt circuit is satisfactory for the 110 volts brought in over the cables if it is well installed, soldered and insulated.

The rate at which tenants have signed contracts has been a pleasant surprise. In the first block surveyed for development there were 797 farmers, of whom 123 were tenants, or 15.5 per cent. Of these 46 agreed to take service, or [Turn to page 24]



A few cents worth of electricity will do as much work in a day as a husky man.



CONTOUR maps of our country show a great hump somewhere west of the middle running irregularly north and south, and the trains of the trans-continental railway lines going through Wyoming slow up as they approach it, stop and take on an extra engine.

For scores of miles, as they crawl over this hump and down, the trains chug through an empty wilderness of low hills, dunes, plains; green in spring and early summer, fading to taupe and fawn as the season wears on. The ground is broken here and there by black bearded ridges and cones, or sharp profiled mesas of red granite, or huge pines standing solitary and twisted by the winds, like sardonic old men who know a thing or two.

This is the Continental Divide, and the trainmen call it The Top of The Big Hill.

Not far from the railroad tracks one September, in the hour of intense darkness just before the dawn, a horse had gone for water to a slight depression in the ground. To one side of it, a cluster of rocks hinted to the knowing that a spring might be there.

Old Pete quenched his thirst, raised his dripping muzzle and stood mouthing the water, turning his head this way and that, moving his ears, attending to a horse's business, which is to keep himself aware every minute of all that goes on near or far.

Pete was a heavy draft horse, 17 hands high. His coat was light bay and dappled. His hair—tail, mane, forelock, even the little skirts over his hoofs—was thick and black. His calm, friendly, brown eyes looked out with a gentle scrutiny from hedges of dark lashes. He was not young and his movements were slow and deliberate.

There came the sound of a freight approaching from the east.

At the point where old Pete stood the ground sloped sharply up to the tracks a hundred feet away. The railroad made a quarter-turn here as it took its direction toward Red Buttes, the next station west.

The labored chugging of the freight grew louder, and Pete's head turned, his ears drew forward, waiting for the two great engines, spitting fire and smoke, which would appear in a moment. Trains had no terrors for him. He had known them from birth, as he had known wind or hail or snow.

The train came nearer. With a roar it crashed into the curve and Pete was engulfed in the pounding of the engines, the squealing of the wheels on the tracks, the rattling of the cars. He stood quietly, watching with curiosity and enjoyment.

Suddenly he gave a convulsive start. Something was happening which was out of the ordinary. An enormous object had leaped off a flatcar and was sliding and bounding down the slope toward him.

At this strange attack, he crouched, every leg braced, his chin drawn in and ears cocked. Then he went up on hind legs, wheeled and thundered away across the plains.

At a safe distance he jammed to a stop, still snorting and trembling. The thing was not pursuing him. It had come to rest at the foot of the slope. The freight was behaving normally. The caboose had just appeared.

Pete waited until the tracks were empty and the chugging of the freight was muffled by distance. then he went slowly back, stopping once to point his ears and snort again. It was an enormous box. He circled it—not too closely—lifting and placing his great feet carefully. Curiosity finally overcame caution and he went up to smell it. He was still gathered, ready to run.

What was this?—a deep whinny burst from him. Instantly it was answered from inside the box. The voice was high, eager, nervous, young and very feminine. A filly.

Now came a great scrambling and banging as if the filly were struggling to get to her feet and could not.

The white stallion trotted up, nose outstretched, his tail plumed over his haunches.

*Illustrated by
CLARENCE TILLENIUS*



She whinnied again and again, and whatever can be told in horse language, she made known to Pete in the next few minutes.

The crate was badly damaged by the fall. One corner was sprung and from this a hoof and leg and part of the filly's haunch protruded.

There was nothing Pete could do, but he rumbled his encouragement, and if a friend standing by is any help, he gave that help. And though, a little later, he moved off to graze, to stand broadside to the rising sun, to return to the water hole and finish his drink, yet he always came back to rumble his comfort and sympathy, to wish that he could share the grass, the water, the sun, with her. Perhaps he knew that if help did not come soon, the filly would die.

When help did at last come, it announced itself by a loud, brassy neigh which rang down from the hills, causing the filly to whinny frantically in answer, to struggle until she was exhausted.

Pete knew a stallion's neigh when he heard it. And now he saw him coming, almost as large as himself, and pure

white. The old horse withdrew a little and stood watching.

The stallion trotted swiftly with head up and stretched nose holding the scent. He threw his feet high, his tail plumed over his haunches.

Then there was bedlam around the crate. The filly struggled and thrashed and whinnied her distress. The stallion neighed and grunted, smelling at her haunch, at the whole box, plunging around it. He reared up and pawed it with great cleaver-like strokes, but still it held together. Furious, he wheeled away to charge at Pete.

Pete lumbered off. The stallion did not pursue him. At a safer distance the big gelding resumed his watching.

Now the stallion thundered upon the crate with

Thunderhead finds himself a filly . . . and Ken finds adventure and romance in this delightful sequel to "Flicka" and "Thunderhead"

his heels. It rocked and splintered. The great hoofs crashed again and again. Suddenly the side gave way, parting from the floor, and the filly rolled out. A flash of four black legs in the air, a frantic scramble, and she was on her feet—a sight which must have surprised the two horses for she was attired in a blanket coat and a hood with rimmed goggles.

She shook herself violently.

AND now they made acquaintance, the stallion and the filly. They walked around each other, squealed, touched soft nostrils, nipped and nuzzled, reared and wheeled away, then, in intense excitement, did it all over again.

Suddenly the dalliance ended. The stallion seized the top of her neck in his teeth, folding his forelegs against her. Running on his hind legs he forced her to get going. She sidled away from him. Then he began his regular round-up routine, snaking around her, his nose close to the ground and his long neck undulating. He plunged on this side, then that, nipping at her heels, giving her an occasional bite in the haunches.

She fled before him. Together they swept away from the tracks, southward. Pete stood there like a great monument, wistfully looking after them.

This part of the country, with its red clay soil, its ditches and water cuts, escarpments, long ridges or sudden jutting hills, was well named Red Buttes. It was dangerous ground. The stallion and filly raced over it as if the gulches and walls were obstacles in



GREEN GRASS WYOMING

PART I OF A SERIAL

by
MARY O'HARA



an easy steeplechase. At last they disappeared behind the shoulder of a hill.

Pete was alone again. He stood, occasionally looking south, occasionally at the railroad. He stamped a hoof and switched his tail. He wandered to the empty crate and sniffed it, but without interest now. He looked southward again and at last began to walk slowly in that direction. His big head plugged up and down. His pace increased. He broke into a pounding trot and the little hair skirts over his hoofs shook and swung.

He was no steeplechaser but he was a good pathfinder. He went down the gulches and up the other sides, he went around the ends of the escarpments. Finally, he too disappeared behind the shoulder.

And when, fifteen minutes later, another freight chugged up The Big Hill, the engineer leaning out of the locomotive window, idly wondered if anything ever happened on this empty and lifeless summit.

It was about five hours later that Ken McLaughlin was riding slowly along the ridge of Section Twenty-four which runs parallel to the railroad and about a quarter-mile south of it. He was a tall, thin boy of 16 with a sensitive face and dark blue eyes that moved ceaselessly, sweeping the land—the characteristic far-reaching look of one who has been brought up on the plains.

He rode very much at ease, now and then addressing a word to the sorrel mare, Flicka, who carried him. She responded by turning an ear backward, or altering her pace at his command.

Ken was the son of Captain McLaughlin who raised sheep and polo ponies on the Goose Bar Ranch a few miles to the east. The boy had been sent by his father to the ranch of Joe Daly on an errand concerning the fifty registered Corriedale rams who served the ewes of the Goose Bar flocks. To keep the

rams separate from the ewes until breeding time in October, Rob McLaughlin had boarded them with Joe Daly.

Although it was early in September, Flicka had already grown a respectable coat of fur. Saddling her that morning, Ken had noticed it and, roughing his hand along the side of her neck, had said, "Getting ready for winter already, Flicka? Isn't it a bit early for fur?"

But, judging by the cold west wind against which Flicka plodded, she was just showing good sense. Ken himself wore a tight-fitting canvas jacket and it was lined with sheepskin.

The wind veered suddenly and the icy tang of it, as well as the unmistakable smell of snow, made Ken turn his eyes to the threatening, timbered mountain range 20 miles to the north. "Sure cooking up something," he muttered, drawing the knitted wool collar of his coat up to his ears, and Flicka put one ear back as if she agreed.

The wind swung west again. Ken wondered why it was that when summer departed all color departed

with it. The prairies were grey brown; the yellow and red of the quaking-asp in the little draws were hardly noticeable; here and there where a growth of pine stood, it showed up more black than green. It was the sky, he thought; if the deep glorious blue sky of Wyoming had arched over all this, then the colors would have sprung forth. But the sky was cold and withdrawn, a pale grey.

He hated the thought that summer was over and within a fortnight he and his brother, Howard, must leave for school in the East. He gave a sharp sigh—then pulled Flicka to an abrupt halt.

After a moment of silence in which, like a puppy, he put his head first on one side and then on the other, he addressed Flicka. "What in heck do you think that is?"

Flicka's attention also had been caught by the strange-looking object on the plains not far from the railroad tracks.

"Looks like a busted freight box of some kind," Ken told her, as he touched her side. "Let's take a look."

Flicka pricked her ears as she trotted to the crate. Ken dismounted and examined it.

It told its own story. It was a horse crate which, somehow had got slung off a freight car. He could see where it had slid and bounced down the slope.

Never had the boy seen such a deluxe affair. He crawled into it and saw that it was thickly padded, and that, sewn into the padding near the front was a card with the name and picture of a filly.

"Crown Jewel." Ken read the name thoughtfully aloud.

Flicka, who was putting in the time snatching a few mouthfuls of grass, lifted her head and looked

at him. "Hear that, Flicka? It's the name of the filly that was shipped in this fancy box—Crown Jewel—a three-year-old, it says."

The picture showed the filly's face and head, her expression of almost comical interest, the alert, forward-tilted ears, the narrow, curved lines of her face, the large, white diamond between her eyes with a pear-shaped pendant hanging from the lowest point.

Ken placed his finger on this mark. "That's where she got her name." He was about to tear the card loose and appropriate it. But why not take the whole crate?—he could drag it home and fix it up. "How'd you like to have a ride in this someday, Flicka?"

He stood thinking. Could the shattered crate or any of its appointments be considered as belonging to anybody else? Certainly it had been discarded—no, it might have fallen off a freight accidentally; in which case, people sooner or later would come looking for it. Better leave it alone—at least for the present. Next week, if it was still here, he could take possession of it.

HE got out of it and continued his examination. All around were the hoofprints of horses. What had horses been doing there? Just curious perhaps . . . the most curious animal in the world, his father always said . . . might have been here in the night looking at the crate and smelling it over . . . yes, that was it . . . there was dung in it and not so very old either. . . .

Studying the tracks, he saw that there had been three horses there. A small, dainty, rounded hoof, a larger one, and a third, still larger. Ken poked at it with his foot. "Big as a bucket," he muttered. "Could be Pete's. He's got the biggest hoof I ever saw."

Pete was a range bum. No one knew where he had come from. He would work willingly for anyone who roped him in, but few had harness big enough to fit him. He wandered the plains, attaching himself to this or that band of horses for a while, and sometimes hanging around corrals and ranch houses, but for the most part he went his way alone.

Just like him to have been here smelling around this box, thought Ken. He tracked the big hoofprints. They went to the water hole and back several times. They wandered a good deal. Finally they went away south into the Buttes. But who were the other horses? The tracks told him nothing. They also went south into the Buttes.

Then Ken noticed the white lettering on the outside of the crate:

TO: Mr. Beaver Greenway, Blue Moon Ranch, Idaho, U.S.A.

FROM: Lawrence Beckwith, Oak Farms Nr. Stroud, Glos. England.

"Gosh! Beaver Greenway!"

It was a magic name! It brought back to Ken recollections of the most exciting experience of his whole life, the race meet at Saginaw Falls just a year ago. His father had allowed him to enter his white stallion, Thunderhead, in Beaver Greenway's stake, the famous Free-For-All. Thunderhead had lost, just because he had preferred to act like a bronc, and buck and throw his jockey and do some fancy fence-jumping. All the same he had shown extraordinary speed. Everybody had said he had it in him to be a steeplechaser. Once again Ken felt the keen regret that had eaten at him all the past year—if only he had ridden Thunderhead himself! "Bet I'd have won . . . I could always manage him. . . ."

Beaver Greenway . . . Blue Moon Ranch; Ken read the words slowly again. Blue Moon—he had heard that that was the name of the great ranch in Idaho where Greenway's racing stables were. Beckwith . . . Oak Farms . . . England: this busted crate had

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THE Country GUIDE

with which is Incorporated

THE NOR'-WEST FARMER and FARM AND HOME.
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Public Ownership

Now that Canada has a full fledged Socialist party and at the same time has many great enterprises owned and operated by federal, provincial and municipal governments, there appears to be some confusion as to where, in a free enterprise state, public ownership should begin and end. The answer is to be found in the platform, or program, of the old farmers' movement in Canada which culminated in the formation of the Progressive party over a quarter of a century ago. There were many clear headed thinkers in that movement who were not at all confused as to the limits of state ownership. Their guiding principle was that it should be confined to those enterprises which serve the people as a whole but which are by their nature monopolistic.

With vivid recollections of the days of railway monopoly in western Canada they believed in the nationalization of railways. Anyway, though there might be competition between railway systems in service, there was none in rates. Their objective has been half attained, not because they advocated it but because half of Canada's railways went into bankruptcy. The generation and distribution of hydro electric energy also falls within this category. In it competition cannot function economically to keep down costs to the consumer. As a result provincially owned hydro systems are almost universal across Canada. Likewise a street railway is a natural monopoly and many Canadian cities, even conservative Toronto, own and operate their street railway systems. Many other examples could be cited.

When it came to artificial monopolies, in which competing industries were amalgamated into huge combines to eliminate competition and mulct the people, those old time leaders had other ideas. They believed that such monopolies should be ruthlessly stamped out by government action. But they didn't stop there. They believed that economic groups should develop their own co-operatives to protect their own interests. Putting their beliefs into action they founded the great co-operative movement in western Canada, a movement which has grown into the giant we know today. Their thinking had a clear cut quality that left no doubt as to what they stood for. No one who is familiar with the political and economic history of Canada can fail to discern the tremendous effect they had on the development of public thought and public policy in this country.

Repel Boarders!

Fred C. Norris has the co-operative movement all wrong. In his presidential address to the Manitoba Section of the Canadian Weekly Newspapers Association he lashed out at it with a vehemence that defeated itself. For that reason his remarks might be let pass without comment, but co-operators will be interested in the charges he made, if for nothing else because of their novelty. He sounded a warning against the growth of the movement, which he evidently regards as a menace to the country. He felt that rural editors might be allowing themselves to be

lulled into a sense of security by imbibing many day dreams of the co-operative cure-all, that the system endangered free enterprise under which alone editors of country weeklies could function. He added that the system threatened to become a pernicious influence which was going to fight back unless it was attacked before it became too unwieldy.

No doubt many of the editors suppressed a smile as they listened to this tirade. Not a few of them have watched the movement here from its infancy and are quite well informed on its history and motives. If by unwieldy Mr. Norris meant large and strong his warning came about 40 years too late. With a membership on the prairies running away up into six figures it is no puny adolescent against which he urged his fellow scribes to stage an all-out offensive. They know, and he should know, that co-operators, far from being enemies, are among the best friends they have. Far from being a menace co-operators are, on the whole, quite decent folk, who want nothing more than a square deal and have banded themselves together for mutual assistance in getting it. Far from being day dreamers, its leaders, past and present, have been and are practical and sensible men and women. Far from being a pernicious influence the co-operative movement in western Canada, as elsewhere, has been a great salutary influence in the lives of the people. It is first of all a people's movement and country editors have nothing whatever to fear from it.

Wool and World Welfare

Things have not gone well at Geneva. That brave ship, the International Trade Organization, struck a sand bar which almost brought it to a full stop and may have damaged its hull. The metaphorical sand bar consisted of wool. The American tariff on wool is 34 cents a pound and the wool growers want it doubled. Australia, which has wool to sell, wants it reduced; perhaps she would compromise on having it cut in half, but she is adamant on a reduction. For some reason or other, American wool growers have a powerful pull with the government, while wool wearers appear to have very little. The wool wearers are numerous, so numerous indeed that the wool growers fall so far short of supplying their needs that the United States is one of the great wool importing nations. If the wool growers can pull enough wool over the eyes of the government to wreck the I.T.O.—a real danger at the time this is written—it will be a bad thing for the world. World recovery depends on the expansion of commerce, which in turn depends on agreement of the nations represented at Geneva to reduce tariffs and other impediments to trade. Failure at Geneva would be a fantastic price to pay for the greed of American wool growers.

The Home Market for Wheat

News despatches from Ottawa indicate that the government is contemplating the abolition of the subsidy on flour and wheat used for domestic consumption. The removal of this subsidy would mean that for the 70 million bushels millers buy for home use, they will have to pay \$1.55 a bushel instead of 77¢ as heretofore. The Dominion Treasury would save a sum which has been estimated at \$25 millions a year, and the price of bread would rise appreciably to make up the difference.

In transmitting this information the daily papers make a signal omission. Nothing is said of the very much larger subsidy which comes out of the pocket of the wheat grower. If the wheat consumed in Canada was bought and sold at competitive market prices it would cost at this moment \$2.50 a bushel. In order that his fellow Canadians may get cheaper bread the farmer is, in effect, subsidizing all wheat consumed at home to the extent of nearly a dollar a bushel.

Reasons have been given, which may be good and sufficient, for selling wheat to our chief external customer at reduced prices during a period of unparalleled economic stress, but no argument of which we are aware has been advanced for the principle of one class subsidizing others who are, on the whole, enjoying unprecedented prosperity. Objections may be raised that the removal of both government and farmers subsidy will double the price of the chief item in the Canadian dietary, and thereby exert an inflationary tendency, as it undoubtedly would. Considerations of this kind seem not to have influenced the government unduly in its successive releases of controls. Some evidence is wanting to show why other groups should be allowed to exploit their positions in the Canadian market, while the grain farmer is prevented from realizing the full value of his product at home.

Planning

If the world falls headlong into a disastrous depression or even into a recession it will not be for lack of warning. The western hemisphere is now experiencing, if not exactly enjoying, one of the greatest booms in its history. Bad as conditions are in the war torn countries, they would be infinitely worse if the boom collapsed. The history of booms is that they have always collapsed unexpectedly. In this boom it is different. The warning of what may follow has been sounded from every roof and hill top.

It is only necessary to recall what happened to prices during and after the other world war to see the contrast. Inflation was accepted as something inevitable, about which nothing could be done. Prices soared unimpeded. When



They are still leaving the farm.

they started down their fall was also unimpeded. Little or nothing was done to prevent their climb or their descent. When the crash came, it came unexpectedly.

It was the same with the boom of the twenties. That boom was not accompanied by inflation of prices but consisted of hectic industrial and stock market activity. But it was expected to last forever and the expectation lasted right up to the fatal stock market crash of October, 1929. Not until Roosevelt was elected was anything much done about it but by that time the dissolution had gone so far that even his drastic measures failed to revive the prostrate body of industry. Recovery was slow and fitful and recovery had scarcely reached the convalescent stage when the war exploded.

Compare these two periods with the present one. Experts on every aspect of international finance, commerce and trade have been marshalled to survey, investigate and analyze the grave situation confronting the world and to recommend the policies to be pursued in meeting it. Legislators are acutely aware of what will inevitably happen unless heroic measures are adopted to ward it off. Every intelligent man and woman in the western democracies knows that great dangers lie ahead, which is an encouragement to legislators to pursue heroic policies. The unexpected cannot happen in this case. The world cannot stumble blindly into a disastrous financial collapse.

The Flight from the Countryside

The 1941 census revealed the surprising fact that the population of Saskatchewan had decreased during the preceding decade. The 1946 census shows that the loss of population has proceeded unabated. A further decrease of 63,304 was recorded for the five year period. Manitoba also showed a loss, the small one of 2,821. Alberta, on the other hand showed a slight gain of 7,161. The net loss for the three provinces in five years was nearly 60,000 souls.

More significant was movement of population within the provinces. The urban population of Manitoba, that is those who live in cities, towns and incorporated villages, increased by 15,458 while the rural population decreased by 18,279. For Alberta the figures were: Urban increase, 47,810; rural decrease, 40,649. For Saskatchewan the urban increase was 21,614 while the decrease in rural districts reached the amazing total of 84,918. The hard fact is that the rural population of the three prairie provinces decreased by over 143,000 from 1941 to 1946.

What are the causes of this exodus, if it is still proceeding? War and war industries took thousands away. They have not all returned. The demand for help in post-war industry and flourishing business conditions generally have prevented that. There has been a movement of farm families from the farm to towns and incorporated villages where they are classed as urban though they still gain their subsistence from the farm. Many a farmer now jumps into his car, drives a few miles out into the country, services his tractor and is at work on his land in less time that it took to get a six-horse outfit harnessed and hooked up in the old days. Mechanization has immensely increased the output per man and production keeps up in spite of the loss of scores of thousands from the countryside.

Whether or not this is a healthy development is another question. With the thinning of population it certainly becomes more and more difficult to keep up churches, schools and other amenities. While the roads are good the farm family can range far afield for its entertainment and relaxation but the winters bring more isolation than if there were a family on every half section or section of land. The lack of help is discouraging the growth of diversification, which adds stability and security to farm life. It also has a tragic effect in that so many elderly people have to slave long after the age when they should be taking life easier.

Under the PEACE TOWER

MOST people on Parliament Hill now seem to think that the next Prime Minister of Canada will be The Right Hon. Louis Stephen Saint Laurent, Secretary of State for External Affairs. The reason for it is a sentimental one. Beneath his hard boiled manner and cold calculating brain lurks in Mackenzie King, the most sentimental man in Canada. He recalls that it was from a French Canadian, that he became prime minister. Rt. Hon. William Lyon Mackenzie King is not likely to forget that as far back as 1909—a full ten years before a Liberal convention picked him—already Sir Wilfrid Laurier had given the nod of approval to the M.P. from Berlin, Ontario. I can remember as a young man, hearing my father tell me that Laurier had selected King to succeed him. Nor is one who recalls the event apt to forget that it was Lady Laurier that King had on his arm, when she was escorted to the place of honor at the Ottawa Liberal Convention of 1919. In a sense, the convention only ratified what Laurier had fore-ordained ten years before.

Now this sentimentalist King has not forgotten 1919, nor Laurier, nor anything else. He is therefore very anxious to return the prime ministership from whence it came, namely, Quebec. In a nutshell, here's the picture. King, an English Protestant, got the Liberal prime ministership from a Catholic from Quebec. He, the English speaking Protestant would like to return the prime ministership to a Catholic from Quebec.

Apart from sentiment, there are several very good reasons why this is scheduled to happen. First of all, the big political race you hear about these days on The Hill is the Prime Minister's Sweepstakes. The candidates mentioned vary from Manitoba's sedate entry and dark horse, Hon. Stuart Garson, to Montreal's suave symphony in brown, Hon. Douglas Abbott, Minister of Finance. You even hear the irrepressible Gerry McGeer, two cycle mayor of Vancouver, and presently senator, mentioned as a long shot. The effect of all this distresses Mr. King, even though he helps aggravate the situation by giving nary an inkling of the man he hopes will succeed him. So you have the rival claimants jockeying around for a favorable position in this race. Each is tending to watch the other closely. Sometimes our privy councillors can't do their best work for seeing what the other fellow is doing. The campaign that is not a campaign runs the gamut from organizing people to pray to preparing a patent leather smile for all press men. But if any of the younger men is chosen as leader, there is apt to be heart burning, and bad feeling. Until the bad feeling is cured by the drastic surgery of a general election, you can have endless trouble. But there is one man that every claimant would be glad to support, and that one man is Mr. St. Laurent.

SIDESTEPPING his unusual endowments, I can say that the boys would rally around him eagerly, since they know that he offers no permanent menace to their political plans. At best, St. Laurent would only be prime minister ad interim. Few give him more than a year or so. But during that precious year, it would offer the Liberals a chance to focus their attention on the new era, and get themselves mentally out of the Mackenzie King epoch. Call him a stop gap, call him a sentimental selection, call him an interim leader, call him what you will, but St. Laurent would be the answer to the party's prayer.

Reverting to our theme of qualifications,

certainly no one has come along faster than Mr. St. Laurent. He landed into politics first as a public duty. Darned if he isn't beginning to like it now! With his family settled, he and Madame St. Laurent are a common sight dining together in the parliamentary restaurant. Or you may see Mde. St. Laurent, in her place

in the Speaker's gallery, watching the debate and waiting for her husband to be free. She too has apparently agreed that the game is worth the candle. Psychologically, then, our minister is all right. Go a little further, and you will discover that the minister has mastered the art of debate, and has proved himself not a little adept in the business of politics. I personally think he doesn't understand the press and never will, and would come a-cropper sooner or later if he were a long term proposition. But since he is just supposed to hold the fort, the newspapermen won't bother him too much. After all, Mr. King gives no more than three press conferences a year and thinks he has done handsomely by the Fourth Estate. Surely St. Laurent could do no worse.

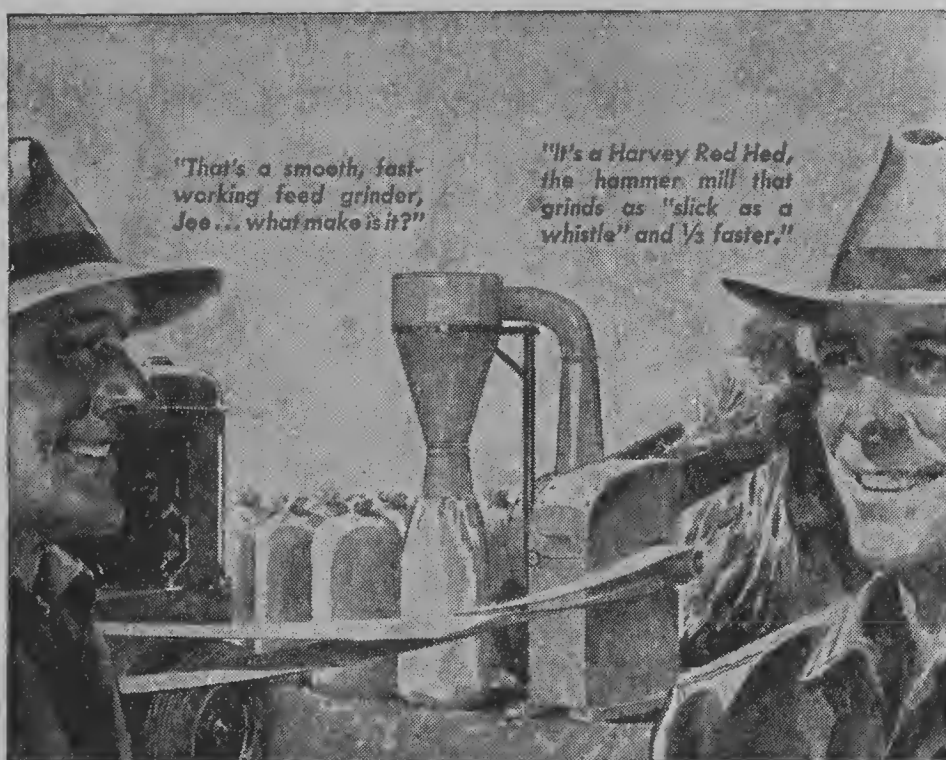
THE one danger to St. Laurent's prospects would be if he decided to become a permanent leader. At present he is under terrific pressure by French Canadian M.P.'s to make a try for the leadership on a long term basis. He'll be 66 next birthday, and that means he would hardly attain the prime ministership till he was past that date. The Non-Quebec Liberals, to be blunt about it, don't want to pick a leader who is closing in on 70. On top of that, they don't want any high pressure stuff from Quebec. They'll gladly see him succeed Mackenzie King, but definitely the understanding must be that this is only a temporary move, and at most, a sentimental gesture. They do not deny St. Laurent's great ability. But they think that he'd wreck the party, as a permanent leader.

What the Liberals say in effect is this; we have twice picked young men as leaders, and each time we have been singularly successful. Laurier was elected to his first legislature when just past 30, was leader of the Liberals when 46. King was first elected to office when 35, made leader when 45 years of age. There's the success story of the Liberal party in a couple of figures. The Conservatives, by picking older men—well, why go into that?

So no matter how eagerly the French Canadians strive to do something about "la race," and ask St. Laurent to do likewise, that old political campaigner, anno domini, is working against St. Laurent all the time. Therefore I say that if the Liberals let St. Laurent stay as prime minister on a permanent basis, it would be political suicide. Even assuming so much as to

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Good Small Fruit Crop

Transportation and labor troubles also occupy attention of British Columbians

By CHARLES L. SHAW

COMMUNICATIONS disrupted by the war are gradually being re-established between Canada's west coast and the markets of the world, but it begins to look as though many months will elapse before this country regains much of the trade it formerly carried on with the Far East.

The announcement, for instance, that private trading with Japan is to be restored August 15 theoretically carries tremendous implications for Canada, because Japan was once regarded as one of our major customers. But actually, in terms of cash business to be done, the item of news is of minor significance. Whether it ever becomes more than that is something not likely to be determined for a considerable period.

The trouble with the Orient as a customer for Canadian goods is that no one over there is in a position to pay. There are, of course, a few exceptions, but in those instances there are usually so many complications with respect to inflationary currency and other details that there remains small incentive for the foreign trader. A sign of the times and a reflection of conditions is the fact that several shipping companies which had diverted vessels for the trans-Pacific trade have now diverted them back again to the Atlantic or some other sphere. There simply isn't enough traffic offering on the Pacific to make their operation worth while. Most of the ships loading grain, lumber, newsprint, canned salmon, metals and other typical British Columbia cargo these days are bound for the United Kingdom, continental Europe or Australasia.

But ships are going to continue to play a vital role in the development of British Columbia, and there is every reason to believe that the volume of cargo business will grow rapidly during the coming months, regardless of the buying capacity of the Orient.

British Columbia businessmen would probably like to make greater use of their ocean shipping facilities if only to demonstrate to the railroads that they were not so dependent on the transcontinental carriers. They have been putting their case to the Board of Transport Commissioners during the last month and the general tenor of their story is that British Columbia has been treated pretty cavalierly by the railroads.

No full-dress freight rate hearing in British Columbia would have seemed genuine without the presence of Gerry McGeer, K.C., who played such an important part in the equalization of grain rates in the 1920's as special counsel for the provincial government.

"We are an ambitious city," declared McGeer, who is now serving another term as mayor of Vancouver as a sort of sideline to his job as Canadian senator. "With your help, we hope to become the first city of Canada instead of the third. We are looking forward to the same kind of extensions in freight rates as you gave in the rates on grain."

VANCOUVER'S aspirations have an excellent spokesman in Gerry McGeer, who was never lacking in personal ambition. The spectacular, hustling mayor of Vancouver takes in more territory every year. A few days ago he was being talked about as a possible successor to Prime Minister Mackenzie King and, in typical fashion, he made it quite clear that there might be more than rumor in the story.

Whether or not McGeer has sufficient national following to make him a seri-

ous candidate for Canada's highest office remains to be seen, but it would be idle to dismiss from consideration a man of such attainments, such untiring drive and so much personal confidence.

This is the time of year when the only serious concern of people in the agricultural areas of the province is the progress of the crops. The berry harvest has been a heavy one and prices have been excellent. The government estimate of the strawberry crop is in excess of 10,000,000 pounds, most of which was produced in the Fraser Valley. The raspberry crop is estimated at 710,000 crates, compared with 681,000 crates last year.

HEAVERY rains in mid-June may have caused widespread damage to the cherry orchards, but most of the tree fruits seem to be in sound condition. There will not be a repetition of last year's record-breaking yield of apples, but the Okanagan growers are confident of fair returns both in production and marketing.

If Alberta produces a record crop of sugar beets this year—and that is the objective—it will be partly due to the co-operation of British Columbia's seed growers. B.C.'s sugar beet seed was used for planting most of Alberta's 30,000 acres this spring. This is the largest sugar beet acreage in Alberta since the sweet crop was first introduced in the foothills province 45 years ago.

Until shortly after World War II got under way, Alberta growers imported their seed from Germany or other European countries. The experience with B.C. grown seed, however, has been consistently satisfactory and it is doubtful whether seed will be required from any other source in the future.

Another issue that customarily arises at this season in British Columbia is labor. It is too early to say definitely whether the province's far-spread forest industries will be shackled with another tie-up such as it experienced for six weeks last year, but the situation is not particularly hopeful, notwithstanding the offer of an all-round 10 per cent increase in wages to loggers and sawmill hands. The C.I.O. unions controlling the industry's labor are holding out for 20 per cent.

There is a fatalistic attitude among the employing lumbermen this year. They feel that if the workers want to strike, it will be their loss more than the lumbermen's. There will be a market for everything the industry can produce for a long time to come, and most of the sawmills and other processing plants have made money this year. If the unions go on strike, it will be the union membership that will suffer most; not the employers.

A similar situation faces the fishing industry. The fishermen have so far declined to start salmon operations unless they are assured of a higher price for their catch. Faced with a return of keenly competitive conditions in the world market, higher costs of operation and curtailment of demand from certain areas, the packers are not willing to risk higher prices except for a few items. At this writing a deadlock prevails.

Fishing tie-ups are not confined to British Columbia. Down in Seattle, because of disagreement over prices between boat owners and the fishermen, the vessels were moored at their docks throughout the halibut season. This meant that the British Columbia halibut fishermen caught more than double the American catch for the first time in recent history.

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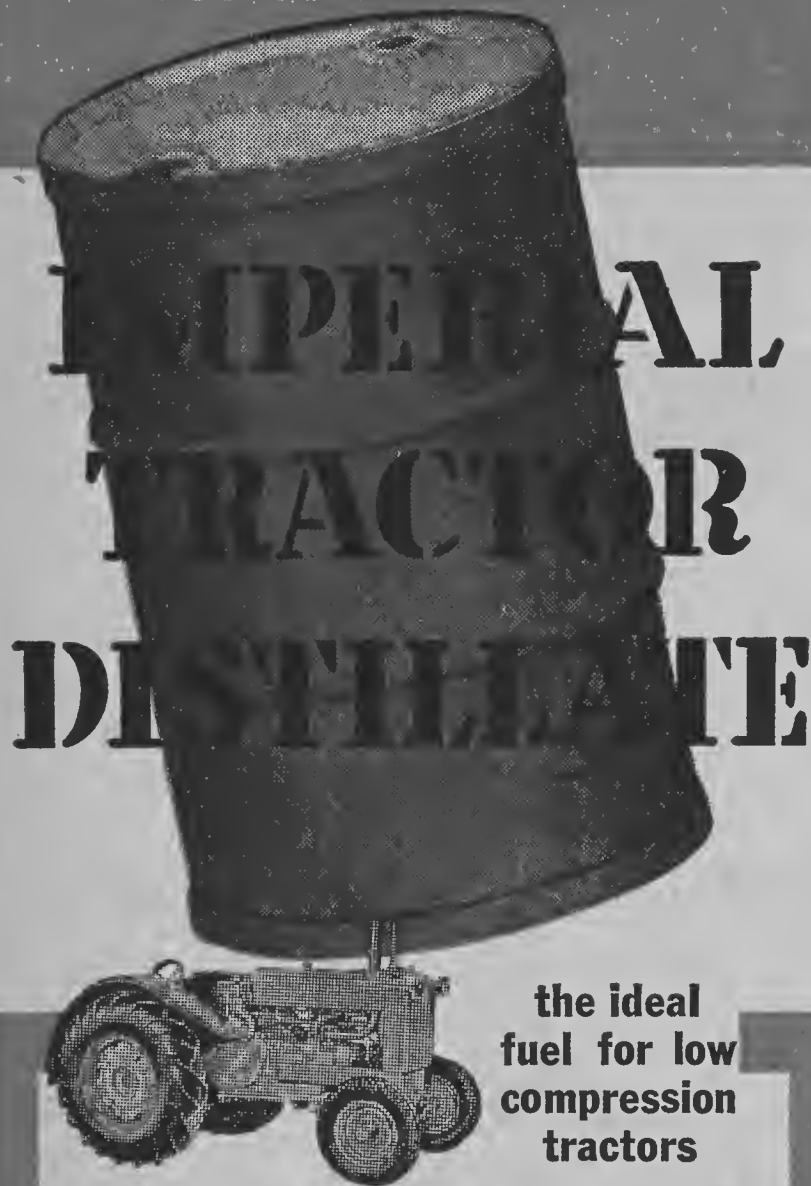
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Farm Division

NEWS OF AGRICULTURE

Agricultural Institute of Canada

FOLKS on the land are not the only ones interested in what's ahead for Canadian agriculture, and the prospects for continued good crops and markets. About 500 persons, many of whom were official delegates from 21 branches across the country, gathered in Lethbridge, Alberta, from June 23 to 26 for the annual convention of The Agricultural Institute of Canada. Technical and professional agriculturists from every province in Canada were present; and their interest in Canadian farm problems extended from farm income security to highly scientific research into the problems of soil conservation, agricultural engineering, and the control of plant and animal diseases, weeds and insect pests.

Representatives of 1,800 members scattered throughout nine provinces, the delegates touched almost every conceivable aspect of the Canadian farm economy. A substantial number do their work in industries dependent on agriculture, but the majority are in the service of the Dominion and provincial departments of agriculture. Many are on the staffs of our universities and experimental stations and are responsible for the introduction of new crop varieties, improvement in livestock breeding, up-to-date methods of weed control, the study of insect pests, the efficient use of power and other farm equipment. Their interests range from the protection of Canadian crops and animals from foreign pests and diseases to the survey and classification of Canadian soils and the study of efficient land utilization. They are, in fact, the technical arm of Canadian agriculture, without whom little if any progress could be made in protecting farm income, or improving Canada's place in the food markets of the world.

This was a convention where those present met not only as a single body, but also in groups of specialists. There were groups meeting to study problems associated with livestock, field crops, horticulture, soils, agricultural engineering, plant diseases, farm economics and extension. These groups sometimes reached conclusions, which when embodied in resolutions and approved by the larger body, will find their way to the appropriate authority wherever located.

Heading The Agricultural Institute of Canada for the ensuing year as president will be Dr. J. F. Booth, chief of the Economics Division, Dominion Department of Agriculture, Ottawa; and the vice-president will be Dr. R. D. Sinclair, dean of the Faculty of Agriculture, University of Alberta. The general secretary is C. Gordon O'Brien, whose office is maintained in Ottawa; and the Institute issues two publications, one "The Agricultural Institute Review," a bi-monthly, and the other, "Scientific Agriculture," issued in co-operation with the Dominion Department of Agriculture. The 1948 convention will be held at the Ontario Agricultural College, Guelph.

Commodity Boards Will Continue

EARLY in June the Rt. Hon. James G. Gardiner, Minister of Agriculture, Ottawa, announced that three of the wartime commodity boards, the Canadian Meat Board, the Dairy Products Board and the Special Products Board were to be continued. These Boards were all established under the War Measures Act. Their period of service was extended under the National Emergency Transitional Powers Act, and from now on they will function by Order-in-Council under authority of the Agricultural Products Act.

Some reorganization has taken place in the Meat Board from which J. G.

Taggart, chairman since its inception, has now resigned to give his full time to the chairmanship of the Agricultural Prices Support Board. L. W. Pearsall, formerly secretary-manager of the Meat Board, now becomes chairman, and the new secretary-manager is F. W. Baird, an official of the Dominion Department of Agriculture. New members of the Meat Board are: W. E. Tummson, secretary, Ontario Hog Producers' Marketing Board, Toronto; J. A. Proulx, a member of the Agricultural Prices Support Board, Quebec City; and Dr. F. H. Auld, Regina, who retired recently as Deputy Minister of Agriculture for Saskatchewan. S. E. Todd, manager, Industrial and Development Council of Canadian Meat Packers, Toronto, who has been a member of the Board since its inception, continues as a member.

The personnel of the Dairy Products Board and of the Special Products Board continues unchanged.

Co-operation in Southern Alberta

SUGAR beet growers in southern Alberta have decided to organize the Alberta Beet Co-operative Implements, Limited for the manufacturing of machinery for sugar beet production, which is difficult to procure. Application has been made for a charter, according to the Lethbridge Herald, and it is hoped that capital provided on the basis of ten cents per ton of beets, basis 1947 production, will be sufficient to finance the plant, which would be the first of its kind in Canada. It is also hoped to benefit the small growers by manufacturing perhaps fifteen two-row topers in time for the beet harvest this fall.

A proposed amalgamation or co-ordinating arrangement between several southern-Alberta co-operatives has been discussed and favorably received. Negotiations are under way for some form of close co-operation between the Southern Alberta Co-operative Association, The Lethbridge Central Feeders Association, The Co-operative Vegetable Growers Association and the Lethbridge Co-operative Packers Limited.

The latter organization had 556 members at the time of its annual meeting, April 15, at which time not enough members were present to form a quorum, and certain business could not be transacted. Nevertheless, officers reported that a \$150,000 plant would be erected on a five-acre site on C.P.R. trackage in Lethbridge, which would handle 60 hogs or 20 cattle or 35 calves or sheep per hour. Assisted by an expert from the U. S. Department of Agriculture, and an American architect, plans were now about ready for Government approval at Ottawa. More money would be needed for erection of the plant, and as much as possible will be raised by the sale of shares in the Co-operative. The statement showed that total assets were \$51,913, and the cost of development to date, 8½ per cent. A possible amalgamation or close association with the Saskatchewan Horse Co-operative Association at Swift Current was under discussion.

Russia's Farm Trouble

RUSSIA has a five-year post-war plan to be completed in 1950. In 1946, the total output of goods by civilians was 20 per cent higher than in 1945. Even this probably meant a decreased production per worker, since probably more than 20 per cent of labor and capital were shifted from munitions to peace time products after the war ended.

Tractor production is a very critical problem in Russia, because tractors mean food. During the 1930's, nearly all of Russian agriculture was both collectivized and mechanized. The 500,000 tractors on farms before the war were

used about four times as intensively as the 1,500,000 tractors in the United States on a comparable acreage of crops; and provided the power for 50 to 75 per cent of the plowing and harvesting in Russia.

Many farm workers were released for city industry, while at the same time grain output was increased 40 per cent over the 1910-1914 level. Now, as a result of the war, around 200,000 tractors, mostly 10 years old, are all Russia has. Horses have been reduced from 18,300,000 to 11,000,000. Manpower is also short. Last year Russia turned out only 13,000 tractors and estimates 30,300 for this year. Replacements on the same basis as pre-war would mean 74,000 new tractors each year. Thus, it may be several years before Russia can produce food at home at the same rate as before the war. Grain acreage is still 15 to 20 per cent below pre-war, and last year drought cut yields per acre by nearly a third.

2,400,000 Tractors Needed

THE National Farmers Union of England and Wales drew to the attention of the F.A.O. Conference at Copenhagen, a report featured by the World Trade Alliance Association, on the question of tractors and farm equipment in relation to increased world food production. The report shows that about 42 per cent of the world's cultivable land devoted to the principal food crops is located in ten countries where tractors are used extensively. Moreover, it appears that 85 per cent of all farm tractors in the world are used in these ten countries. Since it is not feasible to develop quickly a mechanized agriculture in China, India and Burma, the suggestion was that immediate efforts should be concentrated on the rapid expansion of mechanization in European countries not already highly mechanized, in South and Central America and in Africa.

If these countries were mechanized to the extent reached in the ten most highly mechanized countries, it is estimated that 2,400,000 tractors with proportionate numbers of other farm implements and equipment would be required.

Provided the present highly mechanized countries take only replacements during the next three years, it is estimated that a supply of 600,000 tractors should be available for the countries referred to. The report also referred to New Zealand, which, with an average output per man employed in agriculture amounting to £463, employs one tractor to every 36 acres devoted to the principal food crops.

Dutch Co-operatives

CO-OPERATIVE organizations in Holland handle 50 per cent of the fertilizers and feedstuffs, as well as fruit brought to market, 78 per cent of the milk, one-third of the eggs, nine-tenths of the vegetables and potato starch, three-fifths of the sugar beets and a fifth of the bacon. Included among Dutch co-operatives are 15 potato starch mills, nine straw cardboard factories, six sugar beet factories, seven bacon factories, a fertilizer plant and a number of egg auctions and other types of co-operatives.

The Central Bureau of the co-operatives at Rotterdam was formed in 1899 and is a federation of 500 local units with a combined membership of 75,000 farmers, and supplying about 40 per cent of Dutch farmers with their feed, seed, fertilizer and essential production needs.

The war decreased agricultural production in Holland substantially and cut the number of dairy cows by 20 per cent. The Union of Co-operative Dairy Societies includes 434 affiliated societies and about 130,000 members. Holland also has over 1,300 credit co-operatives with a membership of more than 214,000.

U.S. National Poultry Plan

A NATIONAL poultry improvement plan was put into effect in the United States July 1, 1935. Since that time, the United States Department of Agriculture estimates that the plan has been responsible for an increase of about 20 eggs per year per hen in average production throughout the country, as well as for the proving of thousands of breeding cockerels and hens through records kept of production by their daughters.

Also, the plan is given credit for increasing the livability of chicks through control of pullorum disease and for a general improvement in ethics within the industry. As at June 30, 1946, there were 47 states co-operating, and 3,952 hatcheries with a combined capacity of 259 million eggs, were supplied with hatchery eggs by flocks containing 25 million birds. The Department estimates that the plan has probably added at least \$15 million yearly to the earnings of poultrymen, and has provided consumers with a more dependable supply of good quality eggs and poultry.

Movable Distillery

A MINIATURE distillery, about as big as a kitchen stove, has been developed by a distillery company in the United States for use in mobile units which can be moved from place to place and from one grain elevator to another for the production of industrial alcohol.

The small distillery is said to turn out 6½ gallons of 95 per cent ethyl alcohol per day from about three bushels of almost any grain crop. It is suggested that a mobile distillery with all attendant equipment and machinery could be mounted on five railroad cars and could process 500 bushels of corn a day to produce 190-proof alcohol at an estimated cost of 15 cents per gallon, less the value of by-products returned to the farmer for feed and fertilizer. The company says it has also solved the problem of using alcohol in cars and tractors and other internal combustion engines.

Mexico to Increase Farm Efficiency

MEXICO plans to spend \$300 million to increase her land under irrigation by close to 150 per cent. The aim is to raise the standards of living among the people, and to make Mexico more independent of food imports from the United States, Argentina, and Cuba. The program is planned to cover six years, and approximately \$44 million will be spent in 1947, or about one-seventh of the national budget. A total of 18 major dams is projected.

About 70 per cent of Mexico's 20 million people depend on agriculture for a livelihood. She is third in size among the 20 Latin American republics, with only Brazil and Argentina exceeding her. Much of the Mexican land surface, however, is desert or mountain, and a considerable amount is covered by tropical jungle. Only 3.6 per cent of the total area is under cultivation as against three per cent in 1910. Since that time the population has nearly doubled, so that while Mexico was formerly almost self-sufficient in food, she now must import large quantities. The government believes that by modernizing farm methods and developing irrigation, food production within the country may be increased by 80 per cent within six years.

THE Dominion Department of Agriculture has now established grading standards for frozen eggs, the sale of which amounts to \$5 millions yearly, from 60 egg-breaking plants which provide an outlet for Grades B and C eggs, cracked eggs and over-size eggs. Export now is to Newfoundland and British West India.

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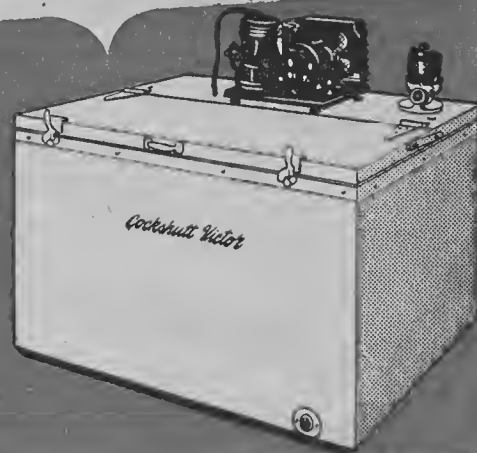
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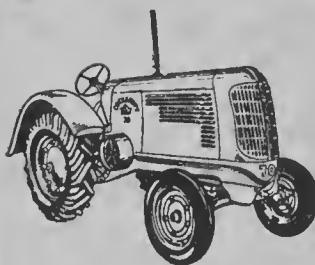
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EXAMINATION of production records in several herds running over a period of 15 years or more in each case seems to indicate that two major influences are at work on average butterfat production. One of these is a substantial increase in the number of cows milked, which usually means lower average butterfat production the next year. The logical explanation is that sharp increases in the size of the herd occur through outside purchase rather than through breeding. Steady efforts at herd improvements will bring about a gradual increase in average herd production, other things being equal. A purchase of milk cows from outside introduces unknown factors and in a herd already possessing a fairly high average production, it is generally difficult to purchase a number of outside cattle that will equal the herd average.

The other factor is based on general economic conditions. During the '30's, when crops were short and feed scarce, the average production of nearly all dairy herds fell off. I noticed this particularly in the records of Harold Pearman. Mr. Pearman, a well known Saskatchewan dairyman, whose farm is partly within the city limits of Prince Albert, bought his first acres of land in 1926. Only seven of the eight acres were broken, and since that time the farm has been enlarged to 365 acres by degrees, at prices ranging from \$8.00 to \$40 per acre. Mr. Pearman, until fairly recently, was the biggest milk and hog shipper in the Prince Albert district.

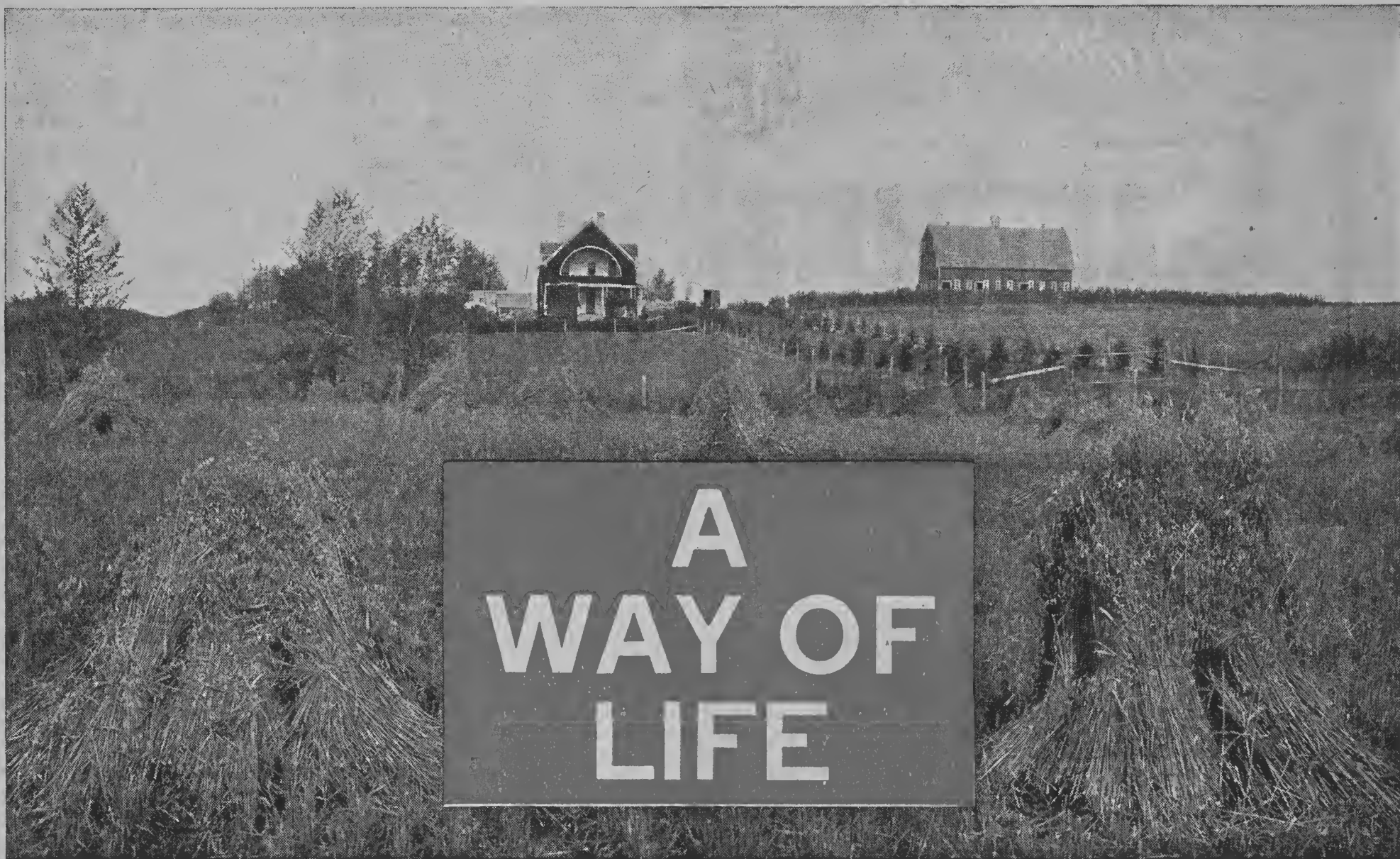
HIS herd improvement records go back to 1931, when 16 cows averaged 7,820 pounds of milk, 319 pounds of butterfat. In the next few years the herd fluctuated in numbers of milking cows from as low as eight to as high as 21, and by 1936, when he milked 12 cows averaging 8,338 pounds of milk, his average butterfat production had dropped to 288.5 pounds each. During the next four years, average butterfat rose to 360.9 pounds, dropped in two years to 312.3, rose in one year to 393.6 and dropped in four years to 338.1. The number of cows milked also fluctuated quite sharply, showing changes between one year and the next of from 18 to eight in one case and 13 to 21 in another, and from 17 to 29.5 in another. Meanwhile, average milk production showed fairly consistent improvement. Increases occurred, both in years when the number of cows was cut down and when it was sharply increased. The most notable increase in both milk and but-

terfat occurred between 1941 and 1942, when the milkers were increased from 13 to 21, average milk production from 8,764 pounds to 10,877 pounds, and average fat production from 312.3 pounds to 393.6 pounds.

MR. Pearman has been in Canada since 1911. He had only three years of schooling, but doesn't recommend that for everybody. His own 16-year-old boy was attending Regina College, and Mr. Pearman told me that he was prepared to give the boy all the educational advantages he could take. When I enquired why he was sending his son so far away to school, when he lived only four miles from a high school, his reply was that crowding 1,200 pupils into a school built for 700 meant so much staggering of classes and waste time, that with no other place to go, he didn't want his son hanging around pool rooms between classes. Moreover, the change was already proving very beneficial.

For ten years, up to 1945, never less than 300 hogs were marketed each year from the Pearman farm. In that year, hog production was cut down to enough for family consumption. Although the milking herd numbered nearly 30 in 1945, this was also cut last year, and Mr. Pearman told me that he could produce a lot more milk than he was doing. The reasons for the decrease seemed to be two in number; first, that he and Mrs. Pearman had behind them 20 years of very hard work, and they felt they couldn't take it any more under the circumstances. It was time to slow down a little. The second reason had to do with income taxes. Mr. Pearman said he didn't mind paying income taxes if everybody paid, but he knew they didn't. He approved the averaging of returns over a three-year period, but felt that a small percentage of total production was a more practical method from the point of view of the farmer, and that perhaps exemptions should be allowed to take care of the small producer who would be taxed too heavily by an equal percentage of production. In any case, he was going to cut down operations to what could be handled conveniently, and would be satisfied to produce less and have a smaller net income.

He has 290 cultivated acres, including hay and pasture, around 60 acres of summerfallow, and about 100 acres of crop. Last year he was growing neither oats nor barley, though when he raised hogs, he grew barley as well. Ordinarily, he grows no wheat, but last year had around 75 acres, and the



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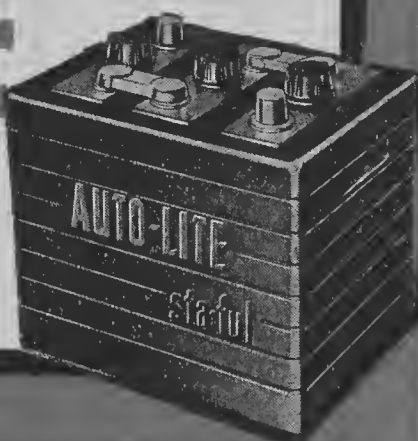
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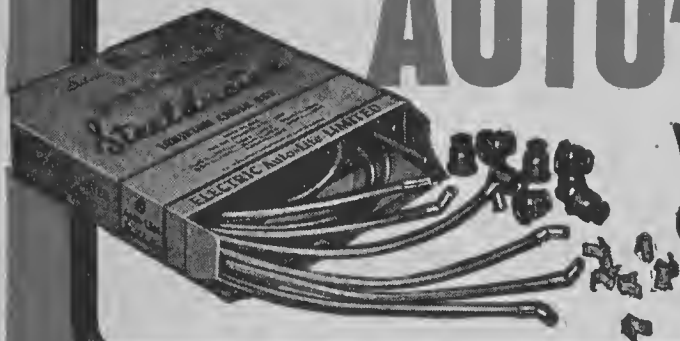


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balance of his cultivated land was sown for green feed.

Mr. Pearman feeds nothing but tame hay, and he uses straight oat chop the year round, feeding as much as 20 pounds daily to his heaviest milkers. He does not feed heavily of chop at the end of a lactation period, but does feed heavily when the cow is dry and approaching calving. Some of his heaviest milking cows give 80 pounds daily.

He feeds daily all the roughage the cows will eat, which means about 35 pounds each for the milking cows. Oats are used for green feed, and about 75 per cent of hay and green feed is put through the feed cutter and used as cut feed.

His favorite hay and pasture mixture is eight pounds of brome grass to four pounds of alfalfa. One pasture is of crested wheat and alfalfa, which was a failure in 1946, owing to dryness. Mr. Pearman thinks crested wheat cannot stand drought in that area. He had 30 acres of straight alfalfa and has never had a bloated cow on it, even when they are turned in to second cutting in the fall, and the alfalfa is thick and a foot and a half high. He believes the reason for this is that his cows are never very hungry.

SOME corn was raised for two or three years; frost got it and it was given up. Cows have also bloated on corn, and three cows were lost in a single morning one year when he grew alfalover. Crested wheat grass is grown for early spring pasturing, because Mr. Pearman dislikes to turn his cows on alfalfa until it reaches a fair height. He finds that he has to begin feeding roughage in the fall about September 20, although he has started as early as August 15, and last year he had to continue feeding until about May 20.

Water has been a problem on the Pearman farm. In the winter of 1945-46, he hauled from the city about 50 per cent of all the water needed for his stock. He has spent about \$1,500 or more for wells, and at the time of my visit had casing on hand for additional drilling. The two dugouts on the farm, one in each pasture, have paid for themselves many times over. His milk is cooled by water from a well, and pumped into a barrel cooler where it is cooled to 48 degrees in eight minutes without ice, or 42 degrees with ice. In July and August ice is used, and it takes 200 pounds to cool the milk sufficiently for transferring to the holding tank. In hot weather, this tank also requires 100 pounds of ice to hold milk overnight. About 40 tons of ice put up in the winter sees him through.—H.S.F.

Building Up a Dual-Purpose Herd

FOR the last five years the Animal Science Department at the University of Alberta has had under way an interesting experiment in building up a dual-purpose herd of cattle. Five full years of study have now been completed.

Originally, six purebred Red Poll cows and 12 grade cows were purchased for this experiment. Some losses occurred and considerable trouble was experienced with abortion. When purchased, most of the cows were in calf, but the second and third calf crops were sired by a purebred Aberdeen-Angus bull, and the fourth and fifth crops calved were sired by a purebred Hereford. A more or less standard procedure was followed in developing calves from pail feeding to marketing from the feed lot. The first two years the beef animals were sold as finished cattle at 12 to 15 months of age. The third year they were marketed at approximately 20 months of age, and the last two years they were sold directly off grass during the summer and autumn at 15 to 18 months of age.

The actual returns as reported are based on 16 head of cows. The average yearly production per cow for the five-year period was 6,292 pounds of milk and 263 pounds of fat. Actual production ranged from 4,038 pounds to 10,269 pounds per cow and butterfat from 164 to 416 pounds. The average butterfat test was 4.18 per cent. Farm-grown feeds were used exclusively, supplemented only by a suitable mineral mixture. The cows were milked twice daily with a milking machine. Cream was sold at prevailing prices, and skim milk is valued in the calculations at 20 cents per 100 pounds. Thus it was possible to arrive at the average yearly income from cream and skim milk per cow. The total average yearly gross return including beef was \$171.25. Of this amount, less an average yearly feed cost for both cows and calves of \$79.38, there was left an average yearly net income per cow over feed costs of \$91.87.

The average yearly return per cow from dairy production was \$110.32, leaving an average net income over feed costs of \$66.32, after deducting feed costs of \$44.

It was pointed out by the Department that if all the cows had calved regularly within 12 months, there would have been 65 lactation periods. Due to abortion, there were only 60 lactation periods, and on the average the cows were dry 105 days and in milk 291 days. Dairy production accounted for 64 per cent of the gross revenue, and beef production for the remaining 36 per cent.

Officials of the Department comment on this experiment as follows: "An average yearly total gross income, including milk and beef, amounting to \$171.25 from a cattle production program which, on the ordinary mixed farm, may be considered only a part of the farming pattern, suggests that a herd of dual-purpose cows has something to offer in certain areas in this province where specialization is not practiced. This type of cattle production, which lends itself to the liberal use of pasture, hay and other relatively low-priced farm feeds, links up well with a soil conservation program."

Early Marketing of Grass Cattle

EARLY summer produced a definite shortage of good beef in the urban markets of western Canada. In the nature of things, the shortage would continue until more cattle reached the market, and this would depend perhaps partly on the market price but mainly on the opinion of cattle owners as to when their cattle have reached the most profitable stage for marketing.

The largest number of cattle generally come to market in October and November after the grass season has ended and cattle have put on about all the weight they will acquire. In recent years, however, many farmers are beginning to realize that earlier marketing would be more profitable. In the first place, yearling and two-year-old steers and heifers make very small gains indeed after September 15. The experience of the Range Experiment Station at Manyberries has been that the gains range around one-half pound per day or less after September 1st. These very small gains, coupled with the fact that prices are almost invariably at their lowest in October and November, have argued for earlier marketing, generally speaking not later than September 30.

In 1942, the Manyberries Station carried out one of a series of shrinkage tests on two-year-old heifers in early July, and again the first week of September. Under range conditions, the heifers were driven three miles from pasture to the scales and weighed. They were held in the corral without feed and weighed again at the end of 24 hours. During the July weighing, the

heifers showed a shrink of seven per cent after 24 hours, and in September the same heifers showed a shrink of five per cent in 24 hours. The net July weight after shrinking was 839 pounds and the average net weight in September was 917 pounds, so that the average net gain in weight of two-year-old heifers from late June until early September was approximately 125 pounds. This was the figure representing an average for a seven-year period. It was therefore concluded that there was very little advantage in holding two-year-old heifers during the months of July and August "if there was any possibility of the price dropping one cent or more per pound, providing they would grade as high in July as in September."

In the case of dry cows that had been well wintered, it was concluded that there was a greater advantage in early marketing than might be the case with heifers.

How Much Grain for Cows?

RECORDS kept on 295 Wisconsin farms for the five years between 1939 and 1943 show that 63 farmers fed rations to their dairy cows in which grain and other concentrates made up less than 10 per cent of the total digestible part of the ration; 71 farms fed 10 to 20 per cent of the ration as concentrates; 81 fed 20 to 30 per cent, and followed fairly closely the recommendations of the dairy feeding expert; 57 fed 30 to 40 per cent; and 23 fed over 40 per cent.

On the basis of returns per cow per year above feed costs, feeding 30 to 40 per cent of the nutrients in the form of grain and concentrates meant an average return of \$94 per cow above feed costs. This compares with \$79 per cow for more than 40 per cent concentrate; \$69 for 20 to 30 per cent concentrate; \$63 for 10 to 20 per cent concentrate and \$53 for less than 10 per cent. These figures indicate the advisability of fairly liberal feeding of concentrates where labor and barn space are relatively scarce.

Where a dairyman is more interested in getting the highest possible price for the feed he uses, or the highest returns per \$1 worth of feed, the survey indicated that plenty of good roughage and less than 20 per cent of the food value in the form of concentrates paid off best. This method produced butterfat at 16 to 17 cents in feed costs per pound of butterfat. Thus, a farmer with plenty of pasture and roughage, as well as an adequate amount of labor and barn space for additional cows, can probably afford to keep more cows and feed more roughage, with only enough concentrate to balance the ration well.

DDT for Flies

BEEF cattle and other animals that are constantly being irritated by small flies during the summer months cannot make good gains.

The United States Department of Agriculture decided to measure the additional gain cattle could make if they were free from flies, and made a test on 601 head of Kansas cattle by using DDT. They compared the treated animals with others untreated, and found that the extra gains made by the treated cattle amounted to 1,202 pounds of beef for each pound of DDT used. In the second test, the extra gain amounted to 1,285 pounds and in the third test 2,306 pounds of additional beef for each pound of DDT.

A. L. Eaglesham, supervisor of pest control, Alberta Department of Agriculture, warns against using an oil solution of DDT, which will harm cattle, but recommends a water solution, which, when properly used, "spells comfort for cattle and doom for flies."



Anytime is "HG" time

In any kind of weather, on any kind of going, the Oliver HG can go on working. Sand, mud or snow... hills, marsh or bottom land do not give you idle days when you have an HG.

The HG is a track tractor that is made for the farm—it will handle row crops! It comes in either 31, 42 or 68-inch tread widths, center-to-center, and has a full 20-inch clearance.

It's a great second tractor for the average two-tractor farm because it's an all-winter tractor. See your Oliver Dealer and ask him about the HG. The Oliver Corporation, Regina, Sask.; Calgary, Alta.; Saskatoon, Sask.; Edmonton, Alta.; Winnipeg, Man.

OLIVER Track-Tractor is an ideal "2nd tractor" on many farms. It can be fitted with a blade for erosion control, road maintenance or snow removal and with many other accessories.

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A TIME-SAVING
MONEY-SAVING EFFORT-SAVING
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DDT with Whitewash

For better control of flies in barns, stables, pig pens, etc.

Extensive tests in barns and pig pens, last season, showed that one application of 50% DDT Concentrate mixed with whitewash gave effective control of flies for a period of at least nine weeks.

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which gave these outstanding results:

- 10 lbs. Lime
- 4 lbs. Green Cross 50% DDT Concentrate for Barn and Livestock Spray
- 10 gals. of water

Mix lime and DDT into paste, then stir thoroughly while adding the water. Apply with regular whitewash sprayer, wetting all walls and partitions thoroughly, especially around windows and doors. Do not let mixture stand too long before using; and keep it agitated.

Start using Green Cross*
50% MICRONIZED* DDT CONCENTRATE

A Wettable Powder for Barn and Livestock Spray

Check these advantages:

1. Most economical
2. No fire hazard
3. Highly effective
4. Non-irritating to animals
5. Can be used with water or mixed with whitewash
6. Greatest kill of flies . . . lasts longer
7. Stores easily . . . won't deteriorate
8. No waste . . . mix what you need
9. 1 lb. makes 1 gallon Barn Spray or 5 gallons Livestock Spray

Product of the combined research and technical facilities of:

THIS SIMPLE METHOD DOES TWO JOBS AT ONCE

AND ASSURES YOU:

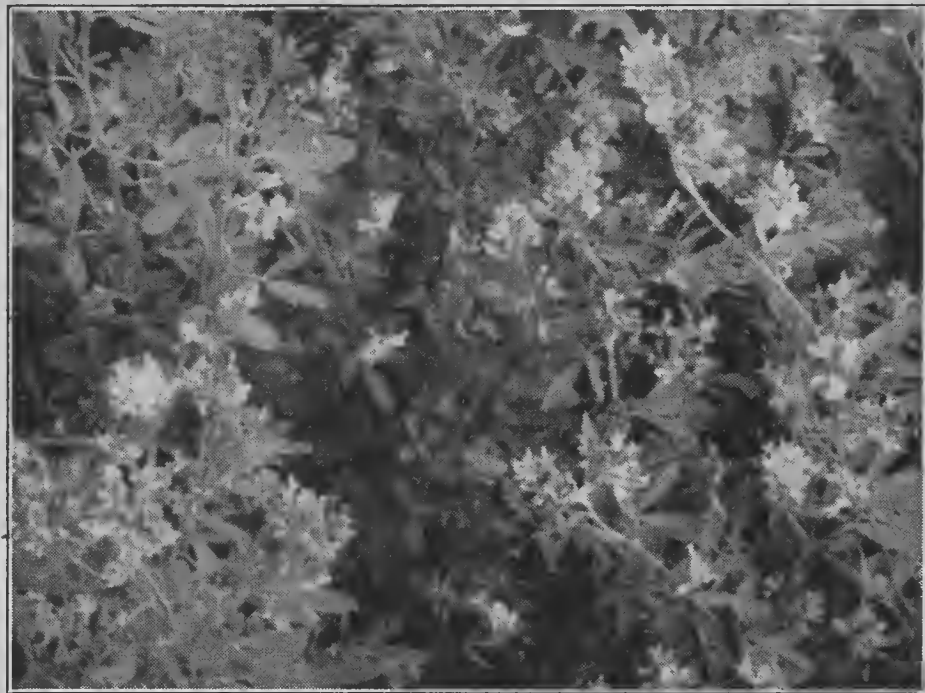
1. Freedom from annoying, filthy, disease-carrying flies and other pests.
2. Clean, sanitary premises all year.
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FIELD



[Guide photo.
Alfalfa bloom must be tripped before the flowers can be fertilized, and neither honey bees nor artificial methods can supplant the work of the wild bee.

Encouraging An Ally

Alfalfa growers now realize that profitable seed crops cannot be obtained if measures are not taken to conserve the wild bee population

By W. J. WHITE

THE seed yield of alfalfa fluctuates more widely than that of most other crops, ranging from total failures to yields of over 1,000 pounds per acre. Wide variations occur from field to field in a district, from district to district and from year to year. In general, it is only in a few districts, which are often rather restricted in area, that dependable average yields are obtained. Even in these seed-producing districts yields fluctuate rather widely and, in general, as the district ages in respect to seed production, yields decline. Among growers and scientists alike, reasons for the yield differences have been a baffling problem. Research and investigation, particularly in recent years, has provided considerable information, upon which these peculiarities of the crop can be better understood.

There is now almost universal agreement among investigators that the alfalfa flower must be "tripped" in order to set seed. "Tripping" simply involves release of the female (stigma) and male (anthers) parts of the flower, from the two petals which surround them. Research has also shown that pollen from a flower or flowers of another plant results in three to four times as much seed as does the plant's own pollen. So cross-pollination is essential for good seed yields.

BENEFICIAL insects perform the essential role of tripping and cross-pollinating. In western Canada the leaf-cutter bees and bumble bees are far the most important tripping and pollinating insects. It is often difficult to realize that they are abundant enough in fields to work the profusion of flowers. However, they work amazingly fast and efficiently. It has been reliably estimated that one leaf-cutter bee working 100 hours during the flowering season could be responsible for one pound of seed. At that rate, 200 to 300 bees per acre would be sufficient to give a good yield, providing other factors were favorable. But such a relatively small population of bees might go almost unnoticed.

Study has shown, however, that in many fields and in many districts there are insufficient of these beneficial wild bees. This fact partially accounts for poor seed-setting in certain districts and certain fields; and also for the common observation that as acreages expand in a seed-growing district and

the district gets older, yields per acre tend to drop. Acreages expand more rapidly than bee populations; and as more and more land is brought under cultivation, nesting sites for the bees become progressively scarcer so that the necessary populations are not maintained.

SEED growers have at times attempted to trip the flowers by the use of harrows, ropes, etc., drawn over fields. Investigations have shown these to be ineffective in increasing yields. These treatments bring about an increase in tripping, but do considerable injury and make no provision for cross-pollination. Honey-bees trip very few flowers in most fields and so are of little or no value as a substitute for the wild bees. It is evident then that the alfalfa seed grower is almost completely dependent upon the wild bee populations to carry out these essential functions of tripping and crossing.

What can be done to use the wild bees to best advantage and to encourage them? First of all it is essential to leave undisturbed, land in which they can find nesting sites. Some leaf-cutter species nest in holes in logs and stumps, while other species of this type, and the bumble bees, nest in the ground. Just how much natural undisturbed land for nesting sites is required per acre in alfalfa is unknown as yet, but at least some provision should be made in this regard. The undisturbed land should preferably be adjacent, or near, to the field. W. D. Clarke, Torch River, Sask., has followed a novel scheme of drilling holes $\frac{5}{8}$ " by 6" into logs scattered around his fields. The tree-nesting leaf-cutter bees have nested very freely in these holes. These bees are unable to make their own tunnels. Just how effective this method is in increasing and maintaining populations has not been determined, but at least it has interesting possibilities.

The acreage left for alfalfa seed production should be related to the populations of wild bees. In general, the tendency is to have the fields too large. The best size will vary with the district. Areas where wild flowering plants are abundant will have higher populations of wild bees than the bald prairie. It is considered that even in areas where wild bees are fairly plentiful the best size of field is not over 25 acres. Acreages in a field or in a district should be increased gradually.

Bees, like humans, have preferences for certain foods and probably like variety in their diet. The wild bees that work in alfalfa will forage on sweet clover, sow thistle, fireweed, and a variety of other plants. These other plants act as competitors with alfalfa. Wherever it is possible to do so, it is therefore advisable to destroy these other plants which flower at the same time as alfalfa and thus force the bees to work the alfalfa more strongly.

While ample populations of wild bees is the first requirement for good seed yields, other factors and conditions materially influence the yield. Another group of insects is highly destructive, because they suck juices from and destroy or damage buds, flowers, pods and seeds. Lygus bugs are the chief offenders of this type in western Canada. Their populations increase as fields get older and as the acreage of alfalfa in a district increases. Research work has shown that dusting with DDT controls Lygus, but certain problems in connection with its application have to be worked out.

Climatic and soil conditions have to be such as to result in a normal plant growth if seed is to set. On some infertile soils, fertilizer application is required to provide satisfactory conditions. Rainfall, temperatures and sunny days are beyond the grower's control, but have their influence both on the plant development and insect activity.

Avoid Ridging By Implements

CONSTANT experimentation and testing of farm implements and machinery is one of the chief functions of the Dominion Experimental Station at Swift Current. This station now warns against tillage implements which, when poorly adjusted, tend to produce ridges and depressions. Such unevenness of surface, unless corrected, will lead ultimately to difficulty in field operations both at seeding and harvesting time.

In areas where strip farming is practised, or where fields are narrow and the direction of tillage cannot be changed to correct the evil, these ridges and depressions become more important. It is pointed out that where they are caused by the use of the single disc, a second operation with the same implement will even the field, if the disc is used the second time so as to split the ridge made the first time.

Where the one-way disc is used, ridges will result if the depth is not the same at both ends of the machine. This means merely a proper adjustment of the front and rear depth control. Adjustment of the hitch will be required where ridges result from overlapping on the previous round or where the front disc covers too wide a space.

Where ridges have developed at the edges of strips in strip farming, with the depression in the centre, some farmers have found it advantageous to shift the margin of each strip a few feet each year, so that the fallow strips overlap the crop on one side. To follow this practice successfully means that the strip boundaries must be shifted in the same direction each year, and eventually a new strip must be laid out on one side of the field.

If shovel and blade type cultivators are kept in proper adjustment and used under satisfactory conditions, they will keep fields even. The same is true of rod weeders, and in some cases the use of these implements can be made to overcome the effect of ridges caused by improper use of a one-way disc.

Speed Of Power Implements

IN spite of the fact that tractors and mechanized equipment of all kinds has now been in use on farms for many years, it is still necessary to warn

operators against excessive speeds. Operating a one-way disc or mold-board implements at more than 3½ miles per hour pulverizes the soil too much and increases the moisture loss as well as the amount of soil erosion. It is, moreover, difficult to maintain a trash cover with excessive speed.

All parts of Canada have soil conservation problems of some kind. It is therefore particularly important in this mechanical age that farm operators learn the limitations as well as the possibilities of mechanized equipment. The fact that a horse might be able to travel a mile in three minutes does not mean that it should always be driven at that speed. In the case of power implements it is not the implement or the tractor which may suffer from excessive speed but the soil and the subsequent crops.

Grass And Legume Silage

SATISFACTORY silage can be made from legumes and grasses cut at the same stage as for hay. After allowing the plants to wilt for about two hours in a good drying day, the moisture will be reduced to around 65 to 68 per cent, at which stage the crop can be ensiled successfully. If the moisture is lower than this figure, more packing in the silo will be required to keep out the air.

Sometimes the weather will not permit wilting in the field, and under such conditions officials at the North Dakota Experiment Station recommend adding cut hay or ground grain. About 100 to 150 pounds per ton of green crop, of ground oats, wheat or barley, are considered sufficient to act as a preservative. This is thoroughly mixed with the grass as it goes into the silo, and it is also recommended that from 30 to 50 pounds of blackstrap molasses per ton of green crop should also be added. The grass or legume is best ensiled when cut ¼ to ½-inch in length.

After the silo is filled, it is better to cover it with chaff or some dense roughage material and wet down several times the first week after filling. About two weeks of fermentation are required to preserve the silage and develop a desirable flavor.

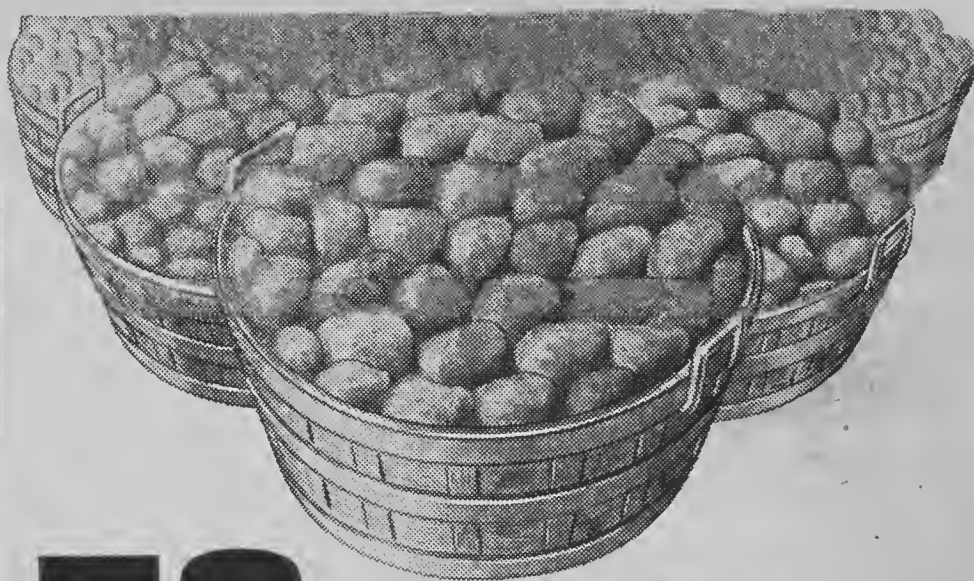
Dairy cattle, beef cattle and sheep find silage particularly palatable; and because legume silage is about one-fifth heavier than corn silage, additional bands should be provided in the lower half of all silos of light construction, in order to strengthen them, if legume or grass silage is used.

2, 4-D Patent Ownership Disputed

IN The Country Guide for March (page 11), an article by H. E. Wood entitled "Selective Weed Killer" stated, with regard to 2, 4-D, "Since it was discovered by scientists at a government institution, the 2, 4-D formula is not owned by anyone, and anyone is free to manufacture it."

The American Chemical Paint Company, Ambler, Pennsylvania, has furnished The Country Guide with a copy of United States Patent Number 2,390,941, issued in favor of Franklin D. Jones, Upper Darby, Pa., and assigned to the American Chemical Paint Company, which, the company informs us, was granted "on the methods of compositions for killing weeds with 2, 4-D." We are also informed that "This same patent has been applied for in Canada"; and that "At the present time the validity of this patent is being tested in the United States courts."

Under the circumstances, the American Chemical Paint Company feels "that it is only fair to notify anyone who might be contemplating going into the manufacture of 2, 4-D,"; and The Country Guide is of the same opinion in this respect.



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Green Cross*

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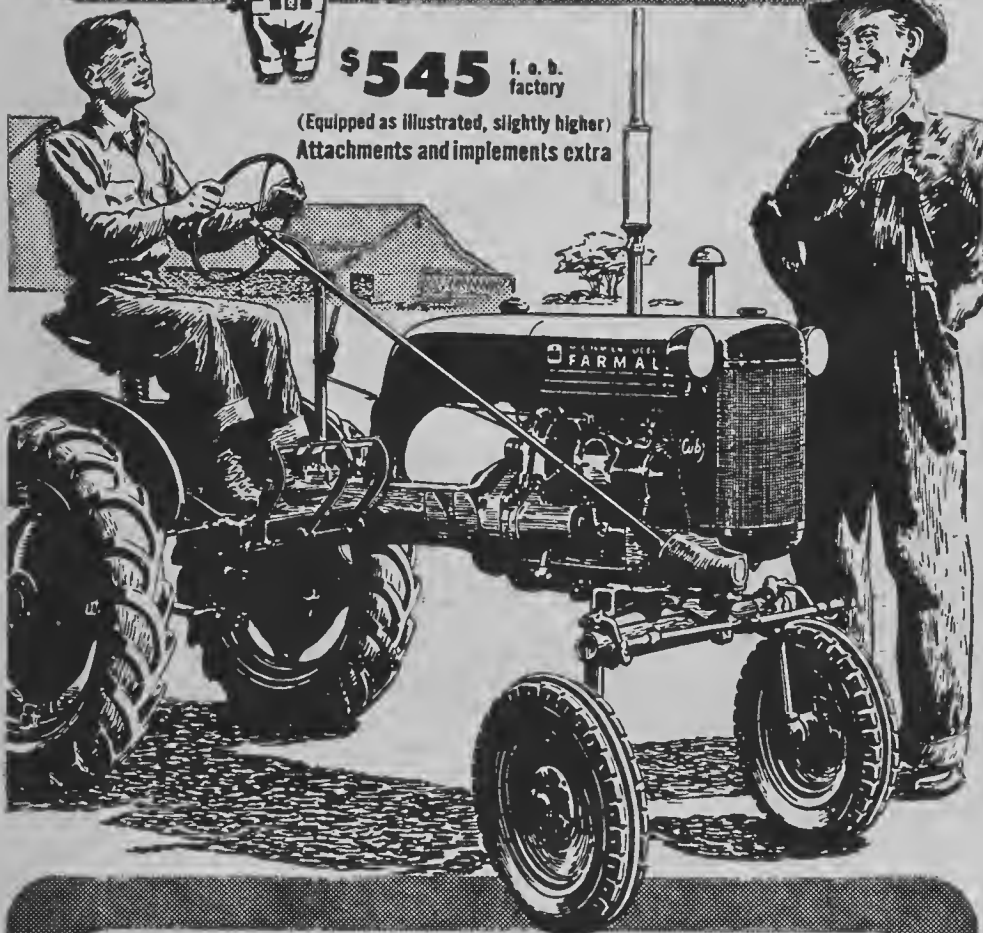
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but a BEAR for work!

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Fit the Cub into your farming operations. See it now at the International Harvester dealer's. Get on the seat and drive it. You'll find it handles as easily as your car.

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INTERNATIONAL HARVESTER

"How Does It Taste?"

E. P. Herman explains some of the secrets of the tongue.

TASTE is one of the most widely used of the five senses, and yet Dr. Harold Tangl, lecturer at the University of Budapest, in an essay on the sense of taste said that taste is a regressive sense in man, as he tastes only with his tongue, while some animals—for example, fishes—taste with their whole body. Yet the sense of taste is capable of giving man the most exquisite sensations and the greatest delights.

An infant tastes with the middle part of his tongue and an adult determines with the sides of his tongue whether food is pleasing or not. The whale has very few taste buds and gulps his food so quickly that it does not matter whether he tastes it or not. On the other hand, among horned cattle, taste is very important, and they scrupulously select the grasses they like. The cow has about 15,000 taste buds, the antelope 50,000 and man only 3,000.

There are four distinct tastes: Sweet, salty, bitter and sour. The sensation of sweet is perceived on the tongue the quickest, because the buds reacting on sweets are located on the tip of the tongue; then comes salty and following that, sour tasting buds. Bitter things are tasted at the back of the tongue.

The sense of taste can be regulated. Warm coffee requires less sugar than cold coffee because warmth is a stimulant to the taste buds. However much sugar is put into ice cream it does not seem to taste too sweet, because when cooled the taste buds scarcely function.

The sense of taste can be trained also. Tea tasters are able to tell the place of origin of a tea after a single tasting. Wine tasters can tell from where a certain variety of wine came, and also whether the grapes from which it was made grew in a sunny or a shady field.

The impression that a substance makes on the tongue is called its savor, to be distinguished from flavor, which is an impression made on both the sense of taste and the sense of smell.

BOTH physiologists and psychologists have determined experimentally that food must be well flavored to be eaten in quantity and to be digested properly. A flavorless meal is usually an indigestible one as well. Tasting the food also, in some mysterious way, regulates the process of nutrition by cutting off the appetite for one food after another as the body has received a sufficiency of each particular item.

Tasting is done in the mouth and smelling in the nose from the vapors that come up from the mouth by way of the back of the throat. There are other factors, however, which contribute to the palatability of a food. "Eating quality" includes the combined effect of taste, odor and "mouth feel." Some examples of mouth feel are fineness, or coarseness, as in milk, chocolate; tenderness or toughness, as in meat; crispness, as in crackers; softness, as in cake; plasticity, as in cheese; viscosity, as in cream; smoothness and oiliness, as in fatty foods; astringency, as in tea; body, as in cocoa.

One particular taste bud is specialized to respond to one only of the four tastes. All other sensations are combinations of one or more of them with sensations of odors. The difference between beef and ham, for instance, is smelled rather than tasted. As a matter of fact, most of the subtler discriminations usually attributed to the palate are in reality due to the action of the nose rather than that of the tongue.

A man who shuts his eyes and holds his nose will not be able to discriminate between a bit of onion and a bit

of apple in his mouth. The difference in taste sensation is due to a diffusion of their ethereal odors in the nose, where the real distinction is made.

Another factor in the anatomy of flavor must be mentioned. Some substances may stimulate cells which are neither smell cells nor taste cells. The sense of touch is highly developed in the tongue, especially at the tip, and with it the sensations of temperature or pain. Thus mustard, ginger and other hot spices stimulate the warmth cells, peppermint stimulates the cold cells and some other substances produce a delicious tingling that is in fact a very feeble pain.

Taste experts sometimes use the tip of the tongue when tasting wine. The tip of the tongue is not very sensitive to acid taste, and by this means astringency and acidity may be differentiated.

Another interesting and important feature of taste is the result of contrast. If, for instance, strong salt is taken, followed by pure water, the sensation given by the water is that of sweetness. A very marked example of this is the sensation of sweetness given by water when taken after eating the tips of globe artichokes.

SACCHARIN, probably the sweetest substance known, still may be detected at a dilution of 1/80,000. It is 300 to 500 times as sweet as sugar.

Probably the most bitter substance known is brucine. It is so bitter that its taste can be detected even when one part is dissolved in 200,000 parts of water. If quinine is considered to have a bitterness of 100, brucine may be said to have a bitterness of 1,000 to 1,250.

The sour taste of foods is due to acids such as acetic, and the fruit acids, citric, tartaric and malic, and to a lesser extent lactic acid. In general, the sour taste is refreshing. It is, however, limited in its employment and very often is agreeable only when modified by sweet additions. The vast array of fruit flavors, for example, require as a background a taste in which sweetness and acidity are combined; and we have such expressions as "lemon juice brings out the flavor." Tartaric acid has the strongest sour taste, followed by lactic, citric and acetic acids in that order.

The saltiest tasting substance is mono-sodium glutamate, which is used as a salt substitute by persons who are forbidden the use of the genuine article. It is seven times as strong as salt, and is widely used in the Orient.

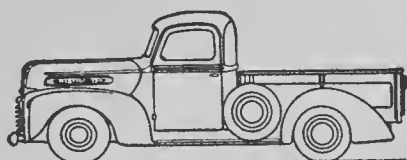
Flavor seems to tend to distinguish various classes of food substances. In the field of beverages bitterness is the prevailing flavor. A list of beverages you drink during the day might well include tomato juice, orange juice, pineapple juice and grapefruit juice for breakfast. These are all distinguished by a tinge of bitterness. In addition, you may drink water, tea, coffee, milk, chocolate or cocoa. These, with the exception of water and milk, have a bitter taste. For later hours of the day you may drink beer, soft drinks or wines. These are either bitter or sour. It is quite logical that a drink should have a predominantly bitter taste, for drinks are taken before meals, and bitterness exerts a very definite effect on the appetite. It aids the digestion of the food that is eaten later.

Science is beginning to take the sense of taste seriously. For instance to help tell how various foods affect the mood and digestion, a "taste thermometer" has been designed at Colgate University. It registers the rating of foods according to their sweetness, saltiness or sourness.

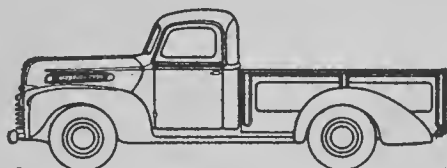
Here's a truck in big demand



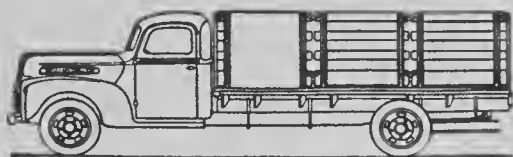
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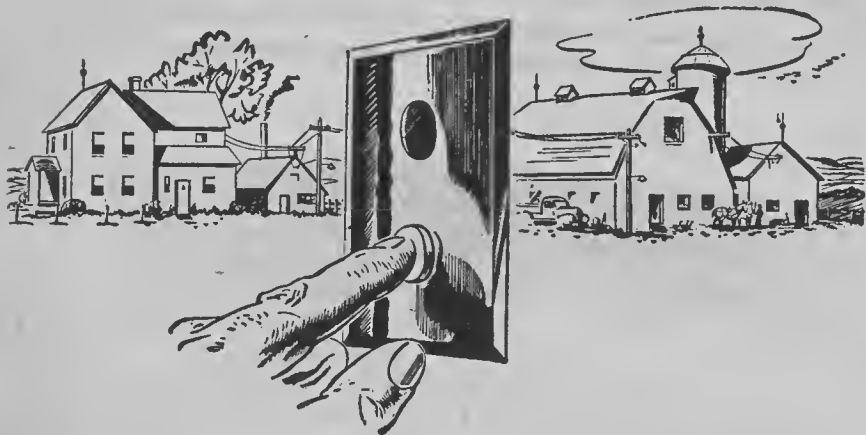
Hydro is an investment, not an expense. That is the decision of Manitoba farmers who are using electricity to increase production and alleviate drudgery on their farms.

The Power Commission's 35 million dollar investment in farm electrification will pay dividends to the entire province in the form of improved rural living conditions and increased farm income.

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IN THE WAKE OF THE POWER LINE

Continued from page 7

37.5 per cent. These figures have proved to run fairly constant.

THE authors took Hon. D. L. Campbell's advice and visited some Manitoba farms which have been recently electrified. This is the story as told us by the women who were universally appreciative of what this new service had brought into their lives.

Breakfast begins the farm day. Instead of starting the fire in a cold wood stove and waiting for the kettle to boil, the lady of the house turns a knob and the electric burners start her cooking

etables are crisp and cold, thanks to refrigeration, and meat is ready and fresh at a moment's notice. Fresh, sweet butter is kept firm and cold in the refrigerator. One of the farm women we visited, Mrs. Walter MacDonald, makes her daily supply of butter in her electric mixer and stores it in the refrigerator ready for use.

Throughout the whole day the help and convenience of electricity is apparent in many ways, and thanks to this modern genii household tasks are completed more easily and efficiently than before. Many other appliances may be bought to add to the home, such as sewing machines, electric clocks, heating pads, toasters, and other little luxuries to make the farm home a place of attraction. Who would trade a farm home so equipped for a town house sandwiched between two others?

Farm wives differ somewhat on which items of electrical equipment they appreciate the most. Among the women



Sitting: Walter and Mrs. MacDonald in front of their farm home at Franklin, Man. Standing: Marion R. McKee, one of The Guide editors. The lawn furniture came out of Mr. MacDonald's mechanized shop.

immediately. Water boils quickly and coffee is made, bacon and eggs sizzle on another burner, and cereal is cooked on another. The heat in the kitchen is cut to a minimum. The homemaker compares without regret the cool kitchen with her torrid workshop of old, with dirty ashes to be carried out, and smoky walls and curtains.

When the men go to work there are the dishes to do. No need to track out to the pump and heat up the water. Dishes are piled in the sink and hot water from the tank in the basement pours from the taps. This is all due to the electric pump which keeps the water at a desired pressure and in plentiful supply, and the electric heater which keeps it piping hot.

If there is a washing to be done, the clothes are sorted out and a tubful placed in the electric washer with soap and hot water. The clean, shiny looking washer does its job, the clothes are gently wrung out by the electric wringer and hung out in the sun to dry.

Ironing is simple with an electric iron. It used to be such a task to keep the old type of irons hot on the stove and to change them continuously, and because of the stove the kitchen was like an oven. The electric iron is simply plugged in and in a matter of minutes is at a desired temperature.

Cleaning the house is simplified. The electric vacuum comes out of the closet and quickly goes to work. The carpets and furniture are cleaned easily and with little effort as compared with the old method of sweeping and beating the rug.

Storing perishable foods is no longer a problem. The electric refrigerator which stands so conveniently in the kitchen contains the daily source of food. There is plenty of cold, fresh milk to drink, which is so refreshing to men coming in from hot field work. Veg-

interviewed, the opinion was expressed that the stove was the appliance they found most useful, with the electric iron a close second. The actual record of the sales of household appliances shows the electric iron to be the most desirable, with the toaster a second choice.

How much are these appliances going to cost to run? Figures show that they are comparatively cheap to operate. At five cents per kilowatt hour a stove costs five cents per person per day; an iron five cents per person per month; a refrigerator five cents per day; a washing machine 10 cents per month. In the light of these figures it is obvious that the operating costs of the appliances are not the stumbling block. The expensive part of electrification lies in the initial costs at the time of the purchasing of the equipment and the wiring of the farm buildings and yards.

The farm users we visited declared, men and women alike, that two-thirds of the satisfaction from electricity was from its use in the home, even though more current might be used for other purposes. That is the story we got from Walter MacDonald. And yet a tour of his farm is a vindication of the statement often made that the use of electricity in farm work may save as much as the wage of a hired man.

WATER supply is a ticklish problem in the Franklin district. MacDonald's well is 185 feet deep. It takes a lot of power to water any number of animals from a hole like that. A gas driven pump cannot compare with electricity in economy.

MacDonald's poultry house shelters a flock of highly bred Barred Rocks tracing their pedigree to the Brandon Experimental Farm. This flock averages an income of \$65 monthly. Without

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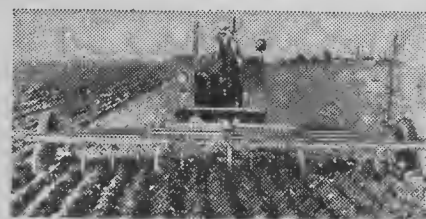
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lights to keep the birds working long hours in cold weather it wouldn't be like that. The extra income from the poultry house lights probably pays the whole of MacDonald's electricity bill.

If shop work is your hobby the MacDonald shop would be a paradise in your eyes. We made a quick, but inexperienced guess at \$1,500 worth of equipment in it including seven motors. The owner agreed that it would cost that much. We suspected it was a great deal more but he wouldn't acknowledge the length to which his passion for power tools had driven him.

Walter MacDonald has had to pay the price of being an innovator. He was one of the first to bring a combine into the district. It wasn't long before it was whispered about that he was passing 15 bushels an acre over the tail end of his new fangled device. But the combine has become standard equipment in his part of Manitoba and electrification is following the same course. We don't do any more manual work, says he, other than pick stone. And even with that job some farmers hereabouts are trying to do it now with a bulldozer.

It was the same wherever we went. Electricity had transported these farm folk to a new country. It is taking the back work out of their daily life. It is helping to solve their labor problem. It is adding to the value of the leisure it creates. It is in a fair way to justify the hopes expressed by Hon. D. L. Campbell in our opening paragraph.

A day spent on the electrified farms of Manitoba is sufficient to persuade one that nothing but deep and lasting depression can halt the forward march of rural electrification in this province. The traditional conservatism of farm people, born of experience, is giving way before the convincing displays on individual farms scattered from Winnipeg westward to the Saskatchewan boundary. Manitoba's rivers have ample power. At the present time all of it comes from the Winnipeg River, and this source can provide enough to complete the 10-year program on which the Power Commission has embarked. The western end of the project lies closer to undeveloped sites on the Nelson River than to the present source of power. That is an intimation of the ultimate attainment possible in Manitoba.

In certain American states which have already passed through the stage of development in rural electrification which Manitoba is now entering, it has been discovered that the coming of hydro provides more than domestic comfort. Electricity has an influence on the agriculture of the country in promoting diversification. A farmer is more likely to go in for dairying if hydro is available to power a milking machine, flood his cow barn with light, and to provide the refrigeration and heat required in a well appointed milk room. On a mixed farm with many appliances such as a feed grinder, stock pump, saw rig, the gas engine is not the convenient answer in sub-zero weather. Nor is it as cheap.

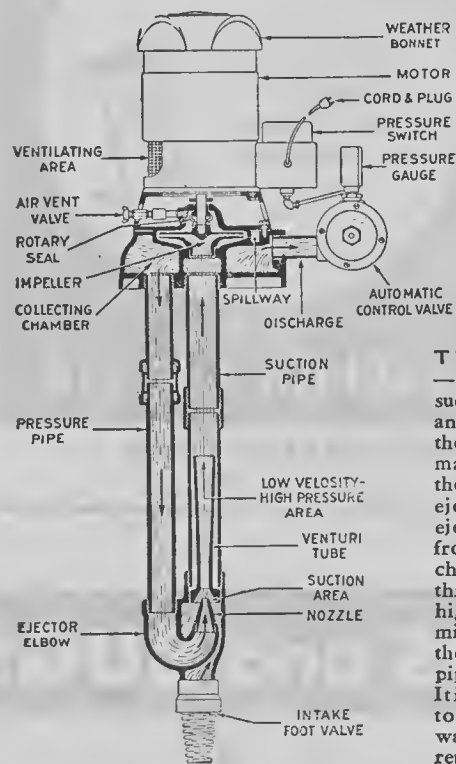
Farmers who have been through it have discovered that electricity is a factor in cutting production costs. The farmer who feels that he cannot afford an investment in comfort may get it as an incidental accompaniment of an economic investment he cannot afford to neglect. With this argument to fortify the obvious benefits of electricity in the home one may safely predict the steady expansion of hydro which in this generation will blanket the province of Manitoba.



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HORTICULTURE



[Photo: Nat. Film Board]

This young lady is working in a fruit processing laboratory at the Summerland Experimental Station, B.C. A similar laboratory is now ready for operation at Morden.

Layering Trees and Shrubs

Propagation by layering sometimes works when plants will not grow from cuttings

By PERCY H. WRIGHT

MANY trees and shrubs propagate easily from cuttings, and any type that does so is commonly propagated commercially in this manner. Cuttings taken in the fall have a better chance of rooting than if they are taken in the spring. If they are buried shallow, and upside down, they cannot suffer any winter injury from cold and apparently they make some slight progress in the preparation of roots. The cutting method is the most feasible—if it succeeds.

However, there are many other plants which will not strike from cuttings, and for them, or some of them, layering must be resorted to. A layer is a sort of undetached cutting, a cutting that is allowed to root itself before it is required to dispense with the aid of the mother plant. The principles of layering are just two: First, expect young wood to produce roots more readily than old; and second, get this young wood down deep, where moisture will never be lacking.

There are two methods of layering. One is to prune the plant to be used as a layer parent, near the ground level early in the spring, and as the numerous new shoots appear, mound them up with soil. This method has the advantage of giving us extremely young wood for layering, and so makes for prompt and easy rooting, but it sometimes has the disadvantage of requiring the moving of much earth.

THE second method is to bend down a branch and bury the outer end of it in the soil, not the tip itself, but as near the tip as possible, since the youngest wood is there. This method has the disadvantage often, of reducing the number of new plants that will result, and it has the further disadvantage of making the weeding problem quite a difficult one, since one must work his hands, or some small tool, in among a real maze of growths. On the other hand, the moisture supply about the layer is likely to be better than if a mound had been made.

As soon as the dormant season has come again, one need only dig up these layers or rooted branches, prune back their tops according to the amount of their roots, and plant out where wanted. It is as simple as it sounds.

Two trees that I have not succeed-

ed in growing from cuttings, but which layer readily, are Bebb's willow and the Verilate willow, for which the name Golden Glory has been proposed. Both these are native in northeastern Saskatchewan, and are valuable for bees, furnishing quantities of nectar and pollen in the very season when these are most valuable to the bee-keeper. The Golden Glory willow is also a striking ornamental, with very large golden "pussies" that do not appear until after the plant has produced leaves, or about the last week of dandelion bloom. It is unfortunate that these two species of willow do not come from cuttings, for if they did they would eventually come to be very much used for windbreaks and dwarf hedges.

MANY fruit trees will layer. Others will not. Often it is a matter of variety, but more often of species. The Manitoba native plum has never layered for me, even when the very youngest wood was put underground, and neither have any of its hybrids. The sour cherry, whether the "Down East" type or one of the hardy Russian varieties used on the prairies, has not layered for me, not even when a notch was made in the buried portion to expose a little of the cambium to the soil. The Manitoba basswood will not layer on my place. Neither will Robin crab. Rescue crab, on the other hand, layers readily. The Agnes rose, a hybrid of Rugosa and Persian Yellow, will not layer here, doubtless on account of its Persian Yellow blood, but it will produce sucker growths from the buried wood. If once own-rooted, it would surely be a prolific suckerer. I have a notion that the same thing might be true of other species that refuse to produce actual roots on buried wood.

There is considerable satisfaction in having an own-rooted plant, for one knows that no matter what happens to the top, winter-killing or accidental burning or rabbit damage or mouse damage, when the plant comes up from the root again it will be the right thing and not the worthless understock. If a plant is commonly budded or grafted upon an understock that is stronger growing than it is itself, the result of own-rooting will be a weaker tree than those to which we have become accustomed.

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POULTRY

Conducted by Prof. W. J. RAE, University of Saskatchewan



Poultry raising has made great strides in recent years and can be maintained in present production by strict attention to lowered costs and improved quality.

Pullets Need Pasture

IN poultry, as in other agricultural enterprises, ideals and recommendations change. One of these changes is the matter of growing young chicks. Not long ago the close confinement method was strongly advocated. Today the free range with good green pasture is favored. Adult birds will thrive in confinement, but the young birds are handicapped if kept indoors. Green feed on range and sunshine provide an abundance of vitamins A and D, as well as proteins and minerals. The pasture will replace some of the expensive ingredients in the mash, which in turn lowers the cost of production.

In order to derive the greatest benefit from pasture, the grass must be kept green and succulent. The young tender shoots have the highest food value; therefore, frequent cutting of the grass is advisable. The pasture should not be allowed to become rank or to ripen seeds. If oats or some other cereal grain is used for annual pasture, repeated sowing throughout the summer is a good practice. An acre of good pasture will provide sufficient range for up to 400 pullets. However, it is necessary to move the shelters and feeders every week or so, otherwise the grass will become cropped too close and the ground may become contaminated with droppings.

Distinguishing Sex

JUDGING from the number of inquiries received by the writer of this column, it would appear that there are quite a number of persons who are unable to tell the sex of geese and guinea fowl. In the case of geese the external differences between the gander and goose are very slight and often difficult to detect. The male has a high, shrill voice, while the female has a harsh, coarse cry. The gander is usually larger than the goose of the same age and has a slightly longer neck and a larger head. The most reliable sex determination is made by examining the sexual organs just prior to or during the breeding season. By turning the bird on its back and exerting a slight pressure on the abdomen, the reproductive organs can be easily seen.

In guineas, the male has a larger helmet or horn than the female. The best identification is the difference in call. Get the birds slightly excited and they will make plenty of noise. The male cry is a one syllable shriek, while that of the female resembles the cry of "buckwheat, buckwheat."

Thrush in Turkeys

THRUSH or Mycosis of the crop is often found in turkey flocks. This disease is caused by an organism belonging to a group called monilia. Sometimes this disease is called moniliasis. The infection is found in the crop and the upper part of the gullet. A slimy discharge will be noticed in the mouth. A post mortem examination will reveal yellowish spots or ulcers covering the lining of the crop, mouth, gullet and sometimes the intestines. The infected birds become listless, lose appetite and weight and tend to stand around with their heads drawn back into the shoulders. Unsanitary pens and yards and lack of proper management are conducive to outbreaks.

The first step in controlling this trouble is to remove the flock to clean range and thoroughly clean and disinfect the pens. Copper sulphate solution may be added to the drinking water for a few days. To make the copper sulphate solution dissolve ¼ pound of bluestone in one quart of soft water. If necessary, heat the water slightly to make a better solution. One tablespoonful of this mixture is added to each gallon of drinking water. Use earthenware, glass or wooden drinking vessels.

Community Nests

THE problem of broken and dirty eggs is a serious one on many poultry farms. For years, poultry keepers have been using the single compartment nest. The usual allowance has been one nest for every five hens. The location of these nests varied from hen house to hen house. Some flock owners built the nests under the dropping board, while others fastened them to the wall. In spite of providing an adequate number of nests, the hens were often contrary and they all tried to lay in one or two favorite nests. No matter how much nesting material was put in the nest it would soon get scratched out, with the result that many of the egg shells became cracked and even broken so badly that all the eggs in the nest became smeared.

A new idea in nests is being tried out by several poultrymen with good results. This is the community nest. It is simply a larger box-like nest about five to six feet long and 18 to 24 inches wide. The principal feature of this nest is the lack of partitions. This arrangement does away with the single compartment idea. Plans of such a nest have been prepared by the Dominion Experimental Station at Swift Current and can be obtained upon request.

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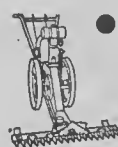
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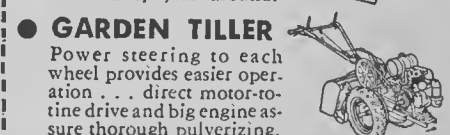
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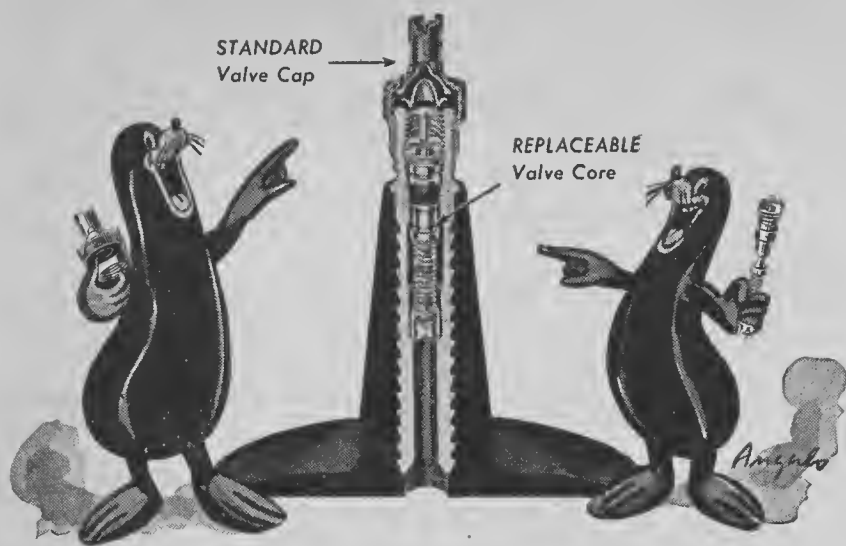
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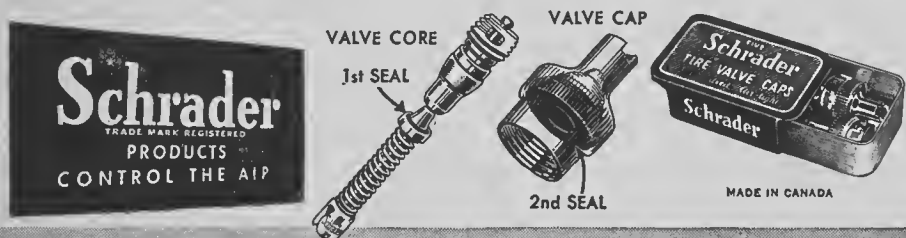
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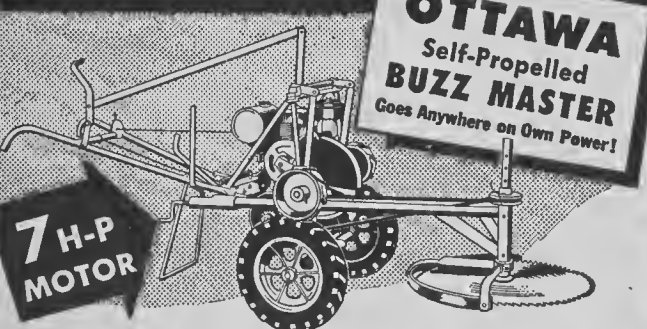
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In and Out of the Workshop

Handy scoop—Fence splicer—Adjusting canvas rollers

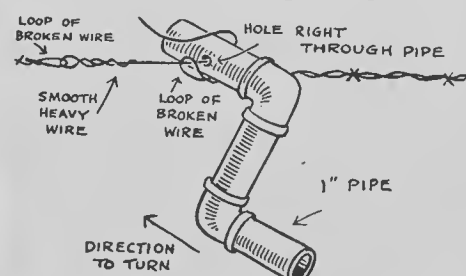
Disinfecting Cisterns.

In the event the water in a cistern becomes contaminated and it is impractical to empty it and clean it, the water may be disinfected by the use of calcium hypochlorite, commonly known as chlorinated lime. This material can be purchased in small sealed cans at drug stores. Only fresh material should be used as it deteriorates upon standing. To treat the water, rub the dry, fresh powder with a small amount of water in a glass or porcelain cup or dish, forming a smooth, thick paste. Use about one ounce, or a moderately heaping tablespoon of the powder for each 1,000 gallons of water to be treated. A cubic foot of water contains 6¼ gallons. Stir the paste into a bucket of water and pour it into the cistern. Then, agitate the water by stirring it with a long board or paddle, or by raising and lowering a bucket on the end of a rope.

Jiffy Fence Splicer and Stretcher

Here is a gadget every farmer should have. It consists simply of a crank made of ¾ or one-inch pipe, with a ⅜-inch hole through one end.

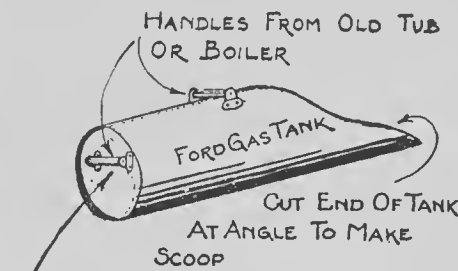
To use, put loops in both ends of broken wire and then attach several feet of heavy smooth wire to left hand one. Push this smooth wire through the other loop, place crank on top of right hand



wire and run free end of smooth wire through hole. Pull as tight as possible, then bend wire back sharply and start cranking in a clockwise direction until fence wire is required tightness. Then swing crank back and release wire as you wrap it around to make a tight splice. When fence wires are not broken but too slack, cut wires and proceed as for a break.

Inexpensive Grain Scoop

This shows a handy farm scoop made from a Model T Ford gas tank. Cut one end on a slant as shown, and the lower lip may be flattened and cut off square if it will make for more convenient scooping. The two handles may be



HANDLE TO BE FASTENED ABOVE CENTER OF TANK

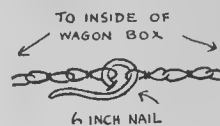
taken from an old cream can, wash boiler, tub, etc., and riveted or fastened with stove bolts as shown. If the end handle is fastened near the centre of the recessed tank end, the scoop will stand upright, either empty or full. The top handle should be slightly nearer the open end of the scoop so it can be handled or carried in one hand without spilling the grain.—I.W.D.

Removing Tree Limbs

When a large branch is removed from a tree, the first cut should be made one to four feet from the main trunk so that the falling branch will not strike the main trunk and strip off sound bark. Then, a second cut can be made close to and parallel to the main trunk, to remove the stub.—F. Mix.

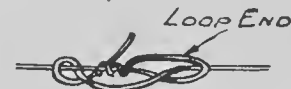
Tension Chain Repair

On many a grain wagon box the tension chain in the middle of the box has a broken hook and has to be fastened with baling wire. One farmer solved this problem in a very simple way by making a new hook out of a six-inch spike.



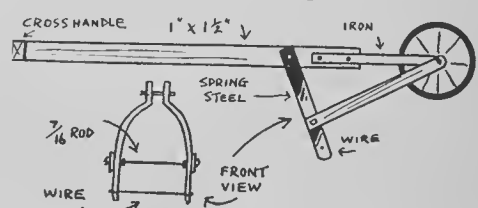
Improved Bale Tie Knot

This bale tie was figured out by a man whose wife writes in to tell about it. He tied 15,000 bales one season and did not have a single tie come loose. It is quick to tie and easy to untie without cutting. It leaves no sharp bends when wires have to be saved and straightened owing to the scarcity of supply, and is therefore easy to straighten for repeated use.—I.W.D.



Rod Weeder for Garden

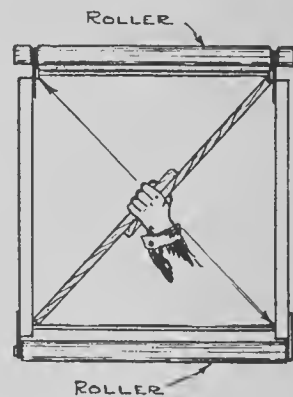
Take two pieces of old car spring to make the wire holders and bend them to shape. Taper them to about an eighth-inch thickness at the ends that go in the ground. The bottom hole for the wire should be quite close to the end. Another hole an inch higher takes the



end of the wire on each side. The wire ends pass through it and are bent down to hold the wire, while the bend of the springs furnishes the necessary tension. The rod over the bolt is a spacer. The rods carrying the wheel are of ½-inch trap iron an inch or more wide and can be bent to work the right height for the person using the weeder the most. A light wheel an inch or 1½ inches wide is used. The handle has to be solidly attached so it will not work loose. This weeder can be worked alongside very small plants and gets the little weeds, besides providing a good mulch.

Square Canvas Rollers

If binder or combine canvases tend to run to one side and fray badly, the rollers are not parallel or square. This can be checked by measuring the distance between the two rollers at each end. They should be the same. The squareness can be checked by measuring the diagonal distances each way, using two strips of wood. Both the upper and lower elevator frames must be checked for squareness. If the lower elevator frame is not square, it can be changed by moving the adjusting nuts on the diagonal brace which runs from near the top of the A-frame down to the main frame beside the bull wheel. The upper elevator frame is usually adjusted by moving the nuts on the short brace extending from the gooseneck to the rear part of the upper elevator frame. Better check all these carefully, as it may save you frayed canvases and broken strips, as well as much lost time.—I.W.D.



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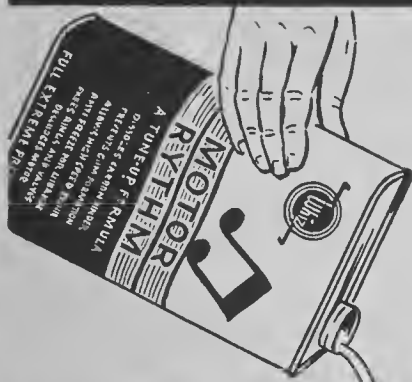


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A Pilgrimage To Pedersen's

Danish skill and Danish industry have succeeded in this horticultural frontier

By J. M. GILROY

"BIG Jim" Pedersen came out from his native Denmark 40 years ago, followed the new "steel" west from Edmonton, pressed on across the Pembina, and took up the top of the highest hill in the Chip Lake country for a home-stand.

Then he hiked back the 80 miles to Edmonton, bought an ox-team, wagon and winter grub-stake, and took just six weeks to make it back to his home-stand and its spacious view. There were muskegs, the trail was more or less an imaginary line between two points, and oxen are always oxen.

Fifteen years later, he was joined by

Just before you reach the house, you see, in neat parallel formation on the ground, like grounded arms, a row of five hoes, sharp and shining, and obviously well used. It is then, with a start, you realize what that "something missing" feeling was that irked you. There are no weeds. I mean exactly that! And that row of hoes tells you why. It's sweat that makes this garden grow, all right.

Yes, long before that blessed event, the birth of 2, 4-D to a grateful gardening world, the Pedersen clan had licked the dandelion problem. Old Scipio with his slogan of "Carthago delenda est," has nothing on the Peder-



The Pedersen dwelling in its attractive setting.

his young brother, Martin, who brought with him his bride, "A sea-king's daughter from over the sea," to help him build a home in the new land.

Come with me now up that hill on a hot day in the late summer and see how the wilderness has been made into a show-place, a Mecca for lovers of beauty from 50 miles east and west along the Jasper highway. The formula? Intelligent hard work, precious little capital, and a combination of Danish stubbornness and the Danish "green thumb."

The entrance to the Pedersen place is from the east, through a rustic gate outlined with golden clematis. A hedge of pollarded birch, spruce and white poplar runs along the road allowance, an original treatment of common native material, artistic and effective.

Within that gate is a new world for the visitor used to the average yard of the bush farm. Here are apple trees, the first ever successfully raised in this part of the country. Nanking cherries. Big beds of luscious strawberries. Asparagus and tomatoes and cucumbers. A stand of rhubarb that reminds you of the growth in the rain forests of the Himalayan foothills. A path runs west along the crest of the hill to the house. South of it, potatoes and cabbage cling to and thrive on the steep hillside.

WHEN you recover your critical faculties, you wonder about soil erosion on that steep hillside, for there are no signs of gullying. The surface soil is a clay loam, but the subsoil seems fairly sandy, which means that heavy rainfalls are quickly swallowed.

A tall hedge of saskatoon, backed by a lower hedge of beaked hazelnut shrubs, separates the fruit and vegetable section from the flowers, ornamental shrubs and lawn. However, here and there, even in the vegetable garden, are little patches of mostly dwarf annuals, such as the clear, cold blue of lobelia.

sens when it comes to war against weeds.

But you've reached the house now, and you want to meet the men and women behind those hoes. Mrs. Martin Pedersen is the gracious mistress of this "homey" home, for "Big Jim" stayed single. She is hospitality personified, and it must be added, one of the world's best cooks. Her attractive daughter, Emma, and daughter-in-law, Mrs. Eric Pedersen, a Yorkshire lass who married the Pedersens' soldier son, help keep the house in apple-pie order.

Martin himself is a short, wiry man, worn fine by late summer. He puts in half a day in his garden before leaving for a full day's work as a C.N.R. section hand, and then comes back to put in a few more hours in his beloved garden in the long northern twilight. He was a nursery gardener in his native land, and had the idea of truck gardening when he first came out here. He built a greenhouse, but this district was too sparsely settled and remote from any remunerative market to make the venture worthwhile.

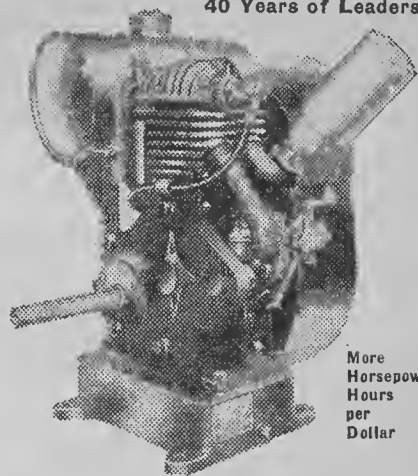
NOW gardening is a labor of love with him. Most of his earnings, plus income from eggs, cream, vegetables and small fruits, go into that good living which the Danish folk like, and beautification and improvement of the Pedersen place.

Eric is a quiet, self-contained veteran whose future presents no problem; he is glad to be home with his British war bride and is considering buying one of the three Pedersen quarter-sections. His natural aptitude for mechanics has been reinforced by his army training, and he looks after the farm machinery, car and trucks. The first thing he did after coming home was to install a lighting system which lights up the home and outbuildings, and even paths and gates.

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grade Holsteins, the Pedersens get good returns in the winters from the timber on their land. There has been no indiscriminate slashing and burning here. Big native trees like spruce and Balm-of-Gilead have been left north of the house and barns to provide a wind-break. Between the home grounds and the corrals there is a tall hedge of Tartarian honeysuckle, caragana and Manitoba maple.

Martin looks after the home grounds, the other Pedersen men, along with the youngest son, George, look after the general farming operations.

Though most of the fruit trees and shrubs have a southern exposure, they have never been afflicted with sunscald or disease. Martin feels that this is due, in some measure, to the fact that he uses nothing but commercial fertilizer for his apples, currants, rhubarb and gooseberries. Manure is applied to the ordinary run of vegetables.

Currant worms were a problem in the large plots of red and black currants, but Martin believes that he has got them under control with two early sprays of calcium arsenate—one just before the first leaves form, and one when foliage is fully developed.

A schedule of spraying with Bordeaux mixture and other mediums is

followed for the apples and cherries.

His rhubarb is a hybridized red MacDonald and Danish variety; the strawberries are Paul Jones. Yields from both are tremendous. Pixwell gooseberries have given as high as 12 quarts to a bush. His Amur, Rosthern and Dauphin crabs are six years old, have been bearing for the past three. The Rosthern is the tallest tree, and bears the largest individual apples. The Dauphin gives the heaviest crops. The Amur apples are the smallest, but they have a superior flavor and are also the most attractive in appearance.

There is a good lay-out of cold frames and hot beds south of the sloping lawn, concealed by a close hedge of Pekin cotoneaster, Ural ash-leaved spirea and assorted lilac.

Lawn walks are bordered by hundreds of iris, columbine, dahlias, gladiolus, peonies and delphinium, other perennials and annuals, two or three clumps of roses, and two attractive "blue" Colorado spruce. These trees were raised from seed, incidentally.

One ends this pilgrimage to the Pedersen place with regret, and with a belief that in this happy home and beautiful surroundings, is the rebuttal to those who say that the youngsters won't stay on the farm.

The Smaller Feathered Rascals

The destruction and nuisance caused by some smaller birds is economically more important than the depredations of the savage sky warriors that have first place in song and story

By KERRY WOOD

THE House or English Sparrow isn't really a sparrow at all, belonging to the weaver-finch family. Neither are such birds particularly English, though they were first imported to North America from England. House Sparrows are found throughout Europe and the western parts of Asia. They provide us with a horrible example of the dangers of importing foreign fauna to our land, because the tough little bird-gangsters have multiplied by the millions here and have become our Number One pest among the smaller birds.

House sparrows are noisy, quarrelsome and dirty, a nuisance wherever found. Their incessant, loud and unmusical chirpings always offend the sensitive ear. They are the worst possible neighbors to other birds, continually bullying and fighting all comers—even to death, at times. Our favorite garden birds, for whom we build bird-boxes, always suffer badly from sparrow attacks, and Tree Swallows, Bluebirds, and even the robust Purple Martins lose their homes at times to the hi-jacking tactics of sparrows. In the matter of dirtiness, sparrows clog our eavestroughing, defile our porches, disfigure public and private buildings, and spoil all types of crops stored in lofts and granaries. In brief, they raze us mad!

True sparrows do prey on insects for a short annual period while feeding their young, but the rest of the year they work us harm.

And how do we get even?

By futilely shooting one or two per year, and by saying nasty things about sparrows from time to time.

Control seems to be out of the question, unless it were possible to organize the whole continent in an anti-sparrow drive and eradicate the pests completely. Every now and then some city, town, or a lone angry man carries on a Sparrow Campaign and rids the immediate vicinity of the pests, but within a year more birds move in from the surrounding regions where they are still plentiful,

When the birds bother your box-nesting friends, the best cure is a well-aimed charge of shot from a .22 shot shell discharged at a range of 20 feet. It permanently fixes that sparrow! During the autumn, 100-bird flocks of House Sparrows may be sighted around the barn yard, flying in dense formations and alighting momentarily on tree or roof. At such times a 12-bore shot gun loaded with No. 9 shot can be used to thin out their numbers, one shot often destroying a score of birds.

If you want a really effective sparrow eradicator, build a sparrow trap. Make a miniature model of the magpie trap (illustrated elsewhere in this book)* scaling down the dimensions to 18 by 30 inches by 12 inches high. The trap should be built of fine mesh chick wire with openings no larger than half an inch, and for best results paint shiny new wire brown or black to lull the suspicious or wary sparrows.

* * *

The Blue Jay is such a colorful rogue that most of us secretly admire the bold, bad bird. They have amusing habits, and exhibit a sly humor that is disarming at times. Jays come quickly to any food offerings put out for more honest birds, bossing the feeding from then on. Their well known habit of slipping furtively through the woods to spy on a human, then bursting out with a shrill "Thief! Thief!" alarm note, has on more than one occasion frightened off an animal or bird that the person was trying to stalk. Perhaps we should view this trait as beneficial, because undoubtedly it has helped to warn game of the hunter's approach many times and thus aids in the preservation of our fast diminishing supply of game!

Blue Jays do most harm by nest robbing, plundering the eggs and young of

*This article is a chapter from a new book titled "A Nature Guide for Farmers," published by The H. R. Larson Publishing Company, Saskatoon, Saskatchewan.



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**RIDS GRAIN FIELDS OF
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Tests prove that "HERBATE" (2,4-D) clears even heavily infested fields of wild mustard in as little as ten days. Yes, "HERBATE" (2,4-D) actually kills mustard (and many other weeds) right down to the very root tips—without the slightest injury to grain or soil.

Costs Less Than \$2 Per Acre

"HERBATE" (2,4-D) is economical, easy to use. From two-thirds to three-quarters of a pound makes enough spray to treat an acre of mustard-infested grain. "HERBATE" (2,4-D) comes in powder form, dissolves quickly in water, may be applied with any type of power sprayer.

Get rid of mustard with "HERBATE" (2,4-D), the C-I-L selective weed killer. In 1-lb. and 5-lb. cans; 25-lb. drums.



DEENATE 50-W

**WATER-MIX 50% DDT INSECTICIDE
FOR BARN... ANIMALS... POULTRY**

Barns and Outbuildings. Sprayed in barns and outbuildings, "DEENATE" 50-W kills flies, mosquitoes, gnats, for days, even weeks, after application.

Just one pound, mixed with water, is enough to cover up to 1600 square feet.

Animals and Poultry. As a spray (or dip), "DEENATE" 50-W destroys flies, lice, fleas. For poultry lice, spray roosts, litter and nest boxes. One pound makes 10 to 20 gallons.

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"DEENATE" 50-W is ground to ultra-micron particle size—mixes easily and thoroughly in spray tank—gives effective, uniform coverage impossible to obtain with coarser ground DDT products. In 1-lb. and 5-lb. cans; 4-lb. bags.



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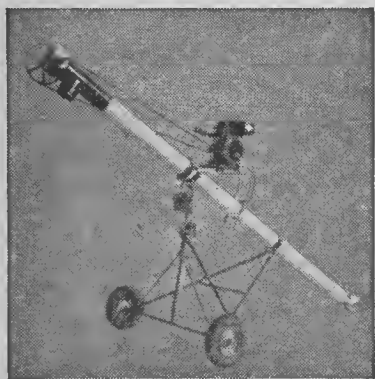
A hen's ability to lay is predetermined by ancestry. The eggs are "locked in", so to speak and she will lay all she can, only if you give her a top quality laying mash. Miracle Laying Mash is your key to full egg production because it contains just what the hen needs to bring all the eggs out. Miracle Laying Mash assures you of extra egg profits.

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- aluminum hood with bevel gears running in grease.
- auger has one-piece Helicoid screw and flange, ensuring continuous scooping action and grain pick-up without clogging.
- widest range of flexibility: engine mounting can be moved to any point of tube.
- swivel assembly can be easily and quickly moved to any position of intake or delivery.
- no hopper is necessary provided intake can reach grain.
- swivel mounting can be anchored to truck and tube lashed to other end for easy transport and immediate use.

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KRALINATOR PRODUCTS LIMITED
Preston, Ontario Canada

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OIL CONDITIONER



smaller birds. The frantic behavior of a small bird when a Blue Jay is in the vicinity of a nest leaves no doubt as to the intentions of the saucy jaybird.

A few jays may be tolerated in a district, because they are eye-pleasing and certainly amusing to watch, but the farmer who values his garden birds should not permit Blue Jays to become plentiful.

* * *

Grackles are even worse than jays at nest robbing, though they are valuable in other ways as insect and seed eaters. Called the Crow-blackbird by some, this is the largest member of the blackbird tribe and easily identified by the long, boat-keeled tail. Its eyes are bright yellow, or straw-colored, and it has a loud, harsh voice that is grating to the ears.

These birds love to nest in a clump of young evergreens, usually twenty or more pairs settling in a loose community in some suitable stand of spruce and uniting to make darting head-attacks on any passers-by. The nests are large accumulations of grass and mud, generally placed in a strong tree-crotch. The eggs are blue, blotched heavily with chocolate brown, and usually number six to the clutch.

While we must not forget their uses as insect-eaters and weed seed destroyers, on the whole the Grackle can safely be considered a pest bird when found near our homes. During the spring season they feast on the eggs and young of many useful birds, and it is a common sight to see a Grackle flying with a naked, newly hatched bird dangling from its beak. Farmers should clean out any Grackle-colonies established near farm gardens, thus protecting more useful birds from the nest-robbing raids of these Crow-blackbirds.

One farmer told the writer that his wheat stooks suffered heavily from Grackles one autumn season. This man farmed near a reedy slough, where literally thousands of Grackles and other blackbirds came every autumn evening to spend the night perched among the reedy shelter. During the daytime the birds raided the farmer's grainlands, and when the time came to gather the sheaves for threshing, it was discovered that the crop had been severely winnowed by the large blackbirds.

Control: by shooting only.

* * *

Many farmers believe that Shrikes or Butcher-birds are evil fellows belonging to the pest class.

It is true that the Northern Shrike, a bird that visits our farm settlements during the winter season and is noted for its remarkable song, does prey on useful birds. At the same time, this 10-inch bird-raptor is quite fond of picking up victims from the House Sparrow flocks and sometimes kills the destructive field mice. Probably this neutralizes the bird's bad habits, but a Northern Shrike that decides to spend the winter in a farm shelterbelt and daily picks off Chickadees, Nuthatches, or other small birds that come to the feeding shelf for food should be quickly dispatched.

The Common Shrike, the Butcherbird we see perched on barbed-wire fences and on telephone posts from May to September, is a smaller edition of its winter relative. While the summer shrike will occasionally catch a useful insect-eating bird, much of the time it feasts upon insects itself. It is a com-

mon thing to see large grasshoppers impaled on the barbs of a barbed-wire fence, placed there by the Common Shrike. Government ornithologists claim it to be a useful species.

Shoot the winter Shrikes if they bother your friendly shelf-feeding birds, but protect the summer Shrikes because of their insect feeding.

* * *

Another imported nuisance is the Starling, the two varieties being the Asiatic Starling of the B.C. coastal region and the Common or European Starling which is spreading from eastern Canada across to the Rockies. Their numbers are increasing every year, and Starlings give promise of becoming, within fifty years, our most serious small-bird pest.

We know that Starlings do feed upon insects. They are large bodied blackbirds, able to devour goodly quantities of insects. But—They eat large quantities of domestic cherries. They oust valuable birds like box-nesters from their rightful homes. They heap up huge accumulations of rubbish when nesting, defiling our roof-tops and buildings and orchards far worse than English Sparrows. And by their communal roosting habits, Starlings destroy valuable stands of trees by over-fertilization of the ground under their perches.

At the time of writing this, Starlings number several millions in Canada but are concentrated largely in Ontario and Quebec. They have recently spread in small flocks across Manitoba, Saskatchewan, and Alberta, and it is rumored that the birds have been able to cross the Rockies into inland B.C. as far as Kamloops. They appear to follow the railway right-of-ways when extending their ranges, as all concentration points in Alberta at present are located along rail lines.

We could have done without this pestilent blackbird immigrant. Despite their insect feeding habits, Starlings are destructive and filthy birds to have around, their bad habits more than cancelling grub-feeding tendencies. None of the lovely native box nesting birds will be able to thrive around our homes, if Starlings get strongly established all across Canada.

Shooting is of no avail, except to destroy individuals pestering our Bluebirds or Martins. A modification of the Magpie Trap may possibly work on Starlings, but the writer has only had intimate experience with the birds on the fringe of their westward range and to date has found them too wary to be caught in this type of trap.

However, there is one solution to the Starling problem. In regions where the birds are plentiful, Starlings roost in flocks numbering several thousands, (probably in millions in certain European countries!) favoring the same copse of trees night after night throughout the winter season. This communal roosting habit is their one vulnerable spot, in the opinion of the writer. Why not use the Roost-Bomb to wipe out large concentrations of Starlings?

A final word: Starlings are reported to be excellent eating. Now, our game birds are seldom permitted to attain plentiful numbers because of the eager hunting done by nimrods, so why don't we allow hunters an all-year open season on Starlings, with a limitless bag limit? Also, we might publish a few Starling recipes, such as: "Take four and twenty Starlings. Bake into a pie."



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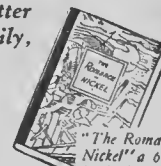
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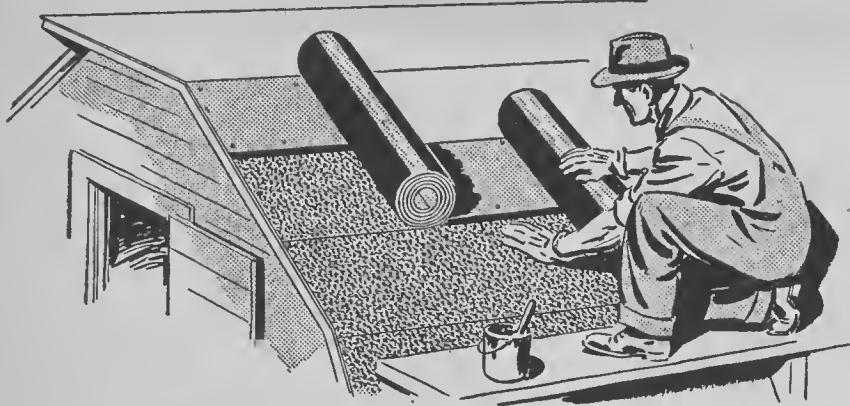
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Feed Grain Shortage in Eastern Canada

Farmers of eastern Canada will be in the market for feed grains from western Canada to a much greater extent during the coming year than ever before. That is the result of disastrous conditions limiting production of oats and barley in Ontario, Quebec, and also in the Maritime provinces. A late and wet spring season has prevented the seeding of normal acreages to oats and barley so that not more than one-half of last year's production of such grains can be expected in the eastern provinces. Experts have recently calculated a shortage of 70 million bushels of oats and barley from last year's production and that a total of perhaps 140 million bushels will be required from western Canada. Eastern agricultural interests accordingly called a feed conference at Ottawa on June 12 in order to publicize their needs and to make recommendations to the government. The conference was attended both by representatives of the farm organizations and representatives of provincial governments and the Dominion government. Recommendations were embodied in the following statement later presented to the Dominion government.

"1. We recommend that the present price structure on feed grains—floors and ceilings and drawbacks—be continued until at least July 1, 1948.

"2. We recommend that in view of the emergency in eastern Canada, special measures be instituted as early as possible to move the necessary additional supplies of feed grains from western Canada to eastern Canada before freeze-up, in order to build the largest possible grain bank in both elevators and farmers' bins to meet this emergency.

"3. Unless extraordinary measures such as these are taken it is our firm conviction that firstly, Canadian consumers will suffer shortages of some farm products and face the danger of high prices in some instances; and secondly, Canada may fall down badly in her export commitments."

The above price recommendations are interesting. No doubt the recommendation that floor prices on oats and barley be continued was intended to satisfy western interests. That, however, was unnecessary as such floors are already guaranteed for the coming crop year. It has been generally supposed that the subsidies now paid on oats and barley fed would be discontinued after July 31. In a reply to a request for their continuance, the minister of agriculture, the Hon. Mr. Gardiner, indicated that the question would be reviewed by the cabinet. Equally it has been supposed that the ceilings on oats and barley might disappear before long as the de-control plans of the government proceed. Eastern buyers naturally want to see such ceilings continued.

There have been times, of course, when western farmers welcomed every addition to demand for their feed grains. The demand in prospect at present from eastern Canada, however, does not represent any addition to western farmers' proceeds from grain sales, but rather the reverse. To meet eastern requirements will mean that smaller quantities of oats and barley can be exported to the United States, lessening the returns that would otherwise be received by western producers.

At this season of the year it is an entirely reasonable hope that western Canada will have sufficient feed grains to satisfy eastern needs. In fact, the amount of shortage feared in the east

is not more than the addition to the western crop which might be the result of a brief period of good growing weather. Possibly eastern difficulties rest not only on the question of total supplies but on problems of transportation and also of the buying habits of eastern farmers. As a rule eastern feeders needing to buy feed, do not lay in large supplies at one time but rather hope that supplies will be available for a continued series of small purchases. Thus it can happen that feed grain supplies in local rural centres are exhausted by a sudden demand even when grain is plentiful in terminal elevators either at the lakehead or at eastern ports. The railways are not always able to forward shipments at the exact time or in the exact quantity that may be called for by feeders. If weather conditions next winter impede railway transport, as is reasonable to be expected, farmers who have not laid in supplies in advance may find themselves suffering, while others with greater ability to put feed grain in store on their farms may get by without difficulty.

The eastern situation will present a problem to the authorities as to preference to be given to grain shipments from the lakehead as soon as the new crop begins to move. During the past two years preference has gone to wheat in order to meet urgent demands for overseas shipments. Such demands are likely to continue throughout the whole of the present lake shipping season. It may at times be a difficult decision whether to allot available shipping space to wheat for export or to coarse grains for feed reserves. In normal years the eastern demand for feed grain is comparatively small during the fall months as farmers naturally use up their home produced stocks before buying other supplies. This year probably there will be many farmers with little or no feed grain production, who will require to buy early in the fall. Heavy demand for supplies will develop earlier in the winter than usual and will reach its peak during the summer months of 1948. No doubt much of the supply for eastern Canada will have to be moved all rail from the lakehead during the winter months. To the extent that lake shipping during the fall months is diverted to coarse grains instead of wheat, it will no doubt be necessary to increase the quantity of wheat exported through Vancouver. Some measure of relief in this respect will be accorded by plans now underway to ship some two and one-half million bushels of wheat to Great Britain from Churchill commencing about the first of August.

It is too soon yet to calculate what demands there may be from the United States for Canadian feed grains. Although the wheat crop of the United States is very heavy there is some apprehension about feed grain supplies as seeding both of corn and oats was impeded over wide areas by continued rainy weather such as was experienced in eastern Canada. That is particularly the case with respect to oats in the north-eastern states, which may have to draw more heavily than usual on western crops, and which in some years look to western Canada for supplies.

Export Prices for Canadian Wheat

During the current crop year the Canadian Wheat Board has sold some wheat at a price as high as \$3.10 per bushel, or exactly twice the price es-

Commentary

established for Great Britain under the British Wheat Agreement. While sales under that contract are made at a uniform price basis, the fluctuating prices have prevailed for all other wheat exported from Canada. The practice of the Canadian Wheat Board has been to adjust its offering prices from day to day in accordance with price fluctuations on markets of the United States. Knowledge of that fact, however, should not lead to too great expectations with respect to final proceeds to be distributed to western farmers. For one thing, although prices advanced during the year from \$2.05 to over \$3.00 per bushel, there has been a subsequent decline to a level of approximately \$2.50 per bushel. The Minister of Trade and Commerce, the Hon. Mr. MacKinnon, gave the House of Commons some information recently in this respect.

"Sales of class 2 wheat; August 1 to May 31, amounted to 55.9 million bushels, of which 35.6 million bushels were for export in the form of flour. Average sales price, \$2.38 a bushel, basis No. 1 northern wheat in store Fort William-Port Arthur or Vancouver.

"From August 1, 1946, to January 31, 1947, first half of the crop year, the board's daily class 2 price ranged from \$2.05 to \$2.34 a bushel for No. 1 northern wheat in store Fort William-Port Arthur or Vancouver. From February 1, 1947, to May 31, 1947, the board's class 2 price has ranged from \$2.34 to \$3.10 a bushel."

On June 17th Mr. MacKinnon reported that since May 28th, that is, in a period of less than three weeks, the price had fallen 56 cents per bushel as indicated by the following figures:

Price of Class II Wheat, basis No. 1 Northern—

May 28	\$3.06
May 29	2.99
May 31	2.89
June 2	2.79
June 3	2.78
June 5	2.76
June 7	2.72
June 10	2.64
June 11	2.59
June 12	2.58
June 13	2.56
June 14	2.55
June 16	2.50

Until the British Wheat Agreement was signed in July, 1946, Canada had maintained a ceiling price of \$1.55 on all export wheat. To some extent that ceiling was regarded as an effort on the part of Canada to prevent world wheat prices from rising to too high a level, and as likely to restrain importing countries from efforts to become self-sufficient. Such effects were small so far as general price levels were concerned and it soon became evident that the world food shortage was so serious that every country in the world had to make a maximum effort to produce food. In addition, the price ceiling on wheat was undoubtedly part of the general price control program of Canada, as it was felt that higher wheat prices might have an inflationary effect. Perhaps still more important, most wheat exported was financed by loans to other countries by the government of Canada, so that the higher wheat prices should go, and the more farmers' receipts should increase from wheat sales, the greater would be the strain on the national treasury.

When the British contract was signed it was announced that export sales to other countries would be on "the world price basis." It was assumed that such a world basis would be reflected by prices prevailing on the open market of the United States, which country

was doing the largest share of world wheat export trade. Actually, both then and later, Argentina obtained much higher prices for export wheat than did the United States, sometimes very much more, but apparently such prices have not figured in the Wheat Board's calculation as to the world's price basis on which it should offer wheat.

Thus the advance from August, 1946, to May, 1947, of over one dollar in the export price for Canadian wheat, and the subsequent drop of 55 cents a bushel, represents movements on the American market. It must not be supposed that such movement represents effect of uncontrolled competitive bidding there. Actually, American markets have been far from entirely free and price advances which might have occurred from uncontrolled bidding for supplies have been restrained. That is because exports from the United States have been channelled through government agencies and practically the only buying for export has been that done by such agencies. While any one was free to buy wheat, exports were allowed only through government agencies and in accordance with allocations from time to time for different countries. The advance in prices which occurred during the late spring of 1947 was due to the effort of the government of the United States to export every possible bushel to meet emergency needs abroad. To get wheat out of the hands of farmers or of other holders high cash premiums were offered, sometimes up to 25 cents a bushel over the nearby futures price. Such premiums for cash wheat, of course, tended to disappear as soon as new crop winter wheat was available, and the early harvest of Texas began flowing to Europe through ports on the Gulf of Mexico.

Canadian asking prices were adjusted, not to the futures prices recorded on markets at Chicago and Kansas City, but rather to the cash premium price at such centres. Consequently the fluctuations recorded in the statement given by Mr. MacKinnon are greater than those which have been registered in the futures market. Similarly it can be said that the sharp decline which took place during June in Canadian prices was the inevitable result of new crop wheat coming to market in the United States.

For a few months other countries were paying Canada a great deal more for wheat than would have been required to secure corresponding quantities for later delivery on the futures markets in the United States. The urgent need for immediate shipments to Europe created a willingness to do so. Importing countries were concerned to get wheat at once, for use during the scarcity period at the end of a crop year before new harvests would be available, and were thus willing to pay what amounted to a high cash premium for immediate delivery.

Supplies available of Canadian wheat were so limited, in relation to demand, that the Wheat Board had no occasion to make sales for forward delivery (except those covered by the British contract). An entirely different selling problem, of course, will face the Canadian Wheat Board whenever supplies become abundant and it becomes necessary to sell for forward delivery instead of simply disposing of wheat as it arrives in salable position at terminal elevators. Under such circumstances more regard will have to be paid to prices in the futures markets of the United States, and less to the cash premiums which may exist from time to time in different markets.



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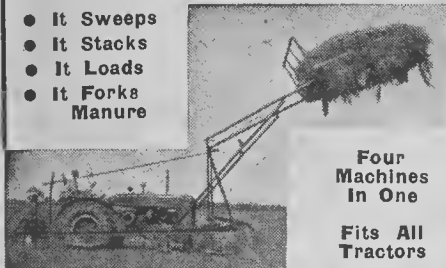
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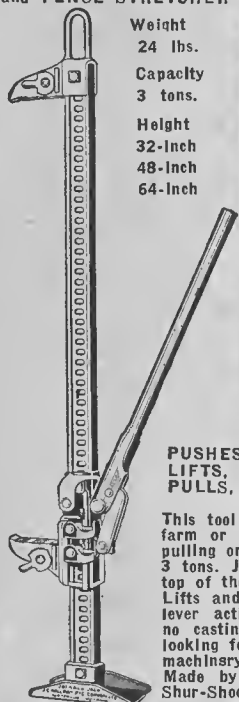
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Calf Club Activity

Keen interest was shown by the future farmers of Morinville district in the calf club showing which took place on July 10th.

L. H. Boissonnault, district farmer, helped in canvassing the businesses of Morinville with great success, so that good prizes could be awarded for the best calves in the club.

The local district agriculturist is responsible for the great success of this organization in interesting young farm people into the better raising of livestock.—*Morinville, Alta.*

Present Three-Act Play

A three-act play, "Plain People," under the auspices of the Walther League, was presented in Kelly's Hall. The play was well presented and well attended.

Members of the cast were: Donald Enders, Mary Hennig, Edith Lechelt, Walter Rosnau, Dorothy Doern, Barbara Enders, David Trapp, John Armbruster, Anne Enders, Walter Doern.

The Stony Plain Municipal District have gravelled the road south of Stony Plain town and towards Brightbank. As this road serves a very prosperous and heavily settled area, it is most welcome.—*Stony Plain, Alta.*

Notes Change to Corn

Mr. and Mrs. August and Mr. and Mrs. Fred Kreye recently returned from a visit to their old home in Dakota and Nebraska. They report a great many changes down there since they left 47 years ago. The most notable is the change from grain to corn which, incidentally, Fred is responsible for introducing into his home district.

Jackfish Lake is getting a real going over by Edmonton sportsmen. Fish are not biting as well as usual, or is this an Edmonton fisherman's alibi?—*Carvel, Alta.*

Wins First for Hereford

Ted Hallam, well-known local breeder, took first place in the Hereford class—800 to 900 pounds, at the recent Birtle Fat Stock Show and Sale.—*Penrith, Man.*

Junior Public Speaking Contest

At a junior public speaking contest recently held, there were 17 contestants from the district. The judges were: Mrs. J. M. McNeil and Rev. Adams, of Russell. A very keen interest was taken in this contest by both the pupils and teachers of local schools.—*Silverton, Man.*

Demand for Registered and Certified Seed Increases

J. E. Birdsall, secretary of the Alberta Crop Improvement Association, reports another successful year in the distribution of registered and certified seed grain to the farmers of this province. Approximately 107,000 bushels were distributed during the 1946-47 season as compared with 67,182 bushels a year ago. Wheat varieties amounted to 38,326 bushels; flax, 11,869 bushels (compared with 1,194 bushels last season); barley, 26,223 bushels; and oats, 35,307 bushels.

Among the wheat varieties, Thatcher proved the most popular with 19,862 bushels distributed. Red Bobs was second in popularity with 9,022 bushels

NEIGHBORLY NEWS

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sold. Redwing was by far the most popular of the flax varieties. 10,079 bushels of this variety were distributed. The three most popular barleys were: Olli, 8,567 bushels; Titan, 5,568 bushels; and Newal, 5,518 bushels. Among the oat varieties Victory was the general favorite. Almost half of the oats purchased from the Association (15,626 bushels) were of this variety, although Eagle, Ajax and Larain were also in fair demand.—*Edmonton (Dept. of Agriculture Notes).*

Disastrous Pulpwood Blaze

Mrs. E. May and her baby of High Prairie, Ben and Frank Brown, Arthur Vander-Mark and three other pulpwood workers were severely burned and a large amount of cordwood was destroyed recently when fire broke out in the pulpwood camps 20 miles south of here.

Unable to escape from the flames which engulfed the camp, the unfortunate victims were forced to take refuge in a nearby creek to keep away from the blistering flames. They remained in the water for four hours before being rescued and taken to the Providence Hospital.

More than 2,000 cords of pulpwood were destroyed in the blaze that raged for several hours.—*High Prairie, Alta.*

Lightning Strikes Transformer Between Craig-Clubine Farms

An unusual visitation by lightning recently struck a Canadian Utilities transformer between the farms of Alex Craig and Percy Clubine, 10 miles west of Grande Prairie, just off the highway. The full current was thus turned into the two homes and fire broke out in the Craig home, their bunkhouse and the pumphouse from the electric connections. The Craigs were alone at the time and the Clubines were not at home. The telephones were put out of order and there was no way to call for help.

Mr. and Mrs. Clubine arrived shortly after. While the men battled the flames, Mrs. Clubine drove to Richmond Hill Golf Club and found four men to help. The bunkhouse and three radios were destroyed.

The Canadian Utilities truck luckily came along and were able to disconnect the current and avoid a more serious disaster.—*Grand Prairie, Alta.*

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Fat Stock Show

The Greenwood Fat Stock Show and Sale was held in Stonewall exhibition grounds recently and was the largest on record. The championship was won by R. Tait and the reserve championship was awarded to George Dick and Son, and in the Boys' and Girls' Fat Stock Show the winner was Violet Smaldon. The winners of the other classes were: Senior show light class, W. Bond; second class, E. R. James; heavy class, R. Tait; special class, bred and raised by the exhibitor, R. Tait.—*Gunton, Man.*

Pioneer Passes

Mrs. Sophia Prescott, a well-known local pioneer passed away recently at the age of 85.

Mr. Prescott pre-deceased her three years ago. The couple were real old timers in the district. They settled near Roncott in 1906 and Mr. Prescott was the first shareholder of the old Grain Growers' Grain Company in the district.—*Roncott, Man.*

To Build New Rink

The old rink has been torn down by volunteer labor in preparation for the new one to be built this summer. Considerable usable material was salvaged.

Other sporting news: Doward Turnbull set a new record in the junior half mile for western Canada at the field meet in Brandon; Mac Alford won the senior pole vaulting event, defeating last year's Manitoba championship winner.

Other winners were: Jim Mills, third junior pole vaulting and Allan Alford, senior high jump.—*Hartney, Man.*

Members of Game and Fisheries Board

At a meeting held in the Community Hall, a local branch of the Manitoba Federation of Game and Fisheries Association was formed, with the following officers: President, J. Braendle; vice-president, D. Allerton; secretary-treasurer, Colin Hall. Committee chairmen are: Membership, N. Braendle; Upland game, James Rice; Fish, Ed. Low; Big game, Ted Ireland.—*Binscarth, Man.*

Electricity and Its Uses

A large crowd attended the meeting held in the Dropmore Hall when a speaker from the Manitoba Power Commission gave a very interesting talk on electricity and its uses.—*Dropmore, Man.*

Caterpillar Tractor Popular

Three large Caterpillar tractors and Le Tourneau form the road equipment. During the last few years the moisture has been more plentiful, but if the weather turns to the dry cycle again, the machinery for making dug-outs will be very much appreciated.—*Foxwarren, Man.*

Annual Club Celebration

The boys and girls of the cattle, hog and poultry club recently held their annual concert and dance, with a very large crowd in attendance. Hon. D. L. Campbell, minister of agriculture for Manitoba, gave an address on the value of fine stock and feed, looking ahead to the future prosperity of the live stock industry in relationship to the holding of world markets. Miss McConnell of Dauphin and Mr. Fletcher of Shoal Lake, each gave an address on club activities.—*Vista, Man.*

Struck By Lightning

While playing baseball at Beaverlodge recently, Warner Loven, 18, of Beaverlodge, was struck by lightning. The lightning apparently struck the ground just as young Loven stepped into the centre field position at the end of the sixth inning. He was lifted clear of the ground and fell backwards. Both

stockings were burned off, his leather shoes were shrivelled and fell off when he was picked up and the left leg of his baseball uniform was burned to tatters.—*Beaver Lodge, Alta.*

Calf Club Show

At the time of writing, the Westlock and District Junior Calf Club are busy preparing for a calf show and sale at Westlock, at which animals from the junior clubs of Pibroch, Westlock and Picardville will be competing and later sold. It is expected that about 65 animals will be entered in the show by the boys and girls of the district. These clubs, combined, are formed into one under the presidency of W. J. Kallal of Westlock and E. Gamble of Pibroch is secretary. In addition to the show and sale, the Provincial Department of Agriculture will provide a show of Purebred stock for the benefit of those attending.—*Westlock, Alta.*

Crushed Behind Tractor

S. Halwa of Grande Prairie suffered a broken arm and fractured collarbone at his farm a week ago, when he was crushed between a tractor and another farm vehicle.—*Grande Prairie, Alta.*

Old-Timer Passes

This district recently lost an old timer in the passing of John S. Harrison. Mr. Harrison was born in Hastings County, Ontario, and came West to Carman in 1882, living in the Graysville district until his retirement a few years ago when he moved in to Carman.—*Graysville, Man.*

School Field Day

The recent field day held at Newdale proved very successful in spite of the cold wind. Five schools attended—Strathclair, Basswood, Cameron, Green Bluff and Newdale.

Cameron won the shield for the country school and Newdale won the cup for the town schools.

The crest winners were: Girls 11 years and under, Kathleen Robertson, Basswood; boys 11 years and under, Malcolm MacDonald, Basswood; girls 12 and 13 years, Jean Ann Smith, Strathclair; boys 12 and 13 years, Bob Pirie, Strathclair; girls 14 and 15 years, Jean Brodie, Strathclair; boys 14 and 15 years, Tom Sywak, Strathclair; girls 16 years and over, Margaret Coutts, Newdale; boys 16 years and over, Gordon McNabb, Cameron.

Pennant winners were: Boys, a tie, Malcolm MacDonald, Basswood, and Bob Pirie, Strathclair; girls, Jean Ann Smith, Strathclair.—*Newdale, Man.*

Celebrates Eightieth Birthday

One of our old timers and highly respected citizens, Mrs. Ephrim Campbell, recently celebrated her 80th birthday. Mrs. Campbell came to this country and to Strathclair from Ontario 68 years ago and has lived in the district ever since. Three of her sons were in the first world war and one made the supreme sacrifice. She also had three sons in the last war, a record to be proud of.—*Strathclair, Man.*

School Field Day

The recent field day held in McCreary proved a real success. All schools in adjacent areas attended, including some from as far away as Plumas and Waldersee. A well planned program of sports was run off and the youngsters had a grand day. The people of the district turned out well in support of this effort.

An Enjoyable Sports Day

The McCreary sports day was an enjoyable event. Twenty-two hard ball and soft ball teams entered the contest and some very fine games were played. The "Stranger" Shows provided plenty of

entertainment for youngsters and the grown-ups too.—*McCreary, Man.*

A Good Neighbor Moves Away

Henry Manwieler, well-known farmer of the Stornoway district, has sold his farm machinery and has left the district. Mr. Manwieler was active on the Stornoway school board and also on the local telephone board for many years.—*Stornoway, Sask.*

Successful Broadcast

A very successful and enjoyable evening was spent at the Grand Theatre in McCreary at the A.C.T.T.B. amateur contest which was broadcast over CKX, Brandon, on behalf of the T.B. drive for a travelling clinic.—*McCreary, Man.*

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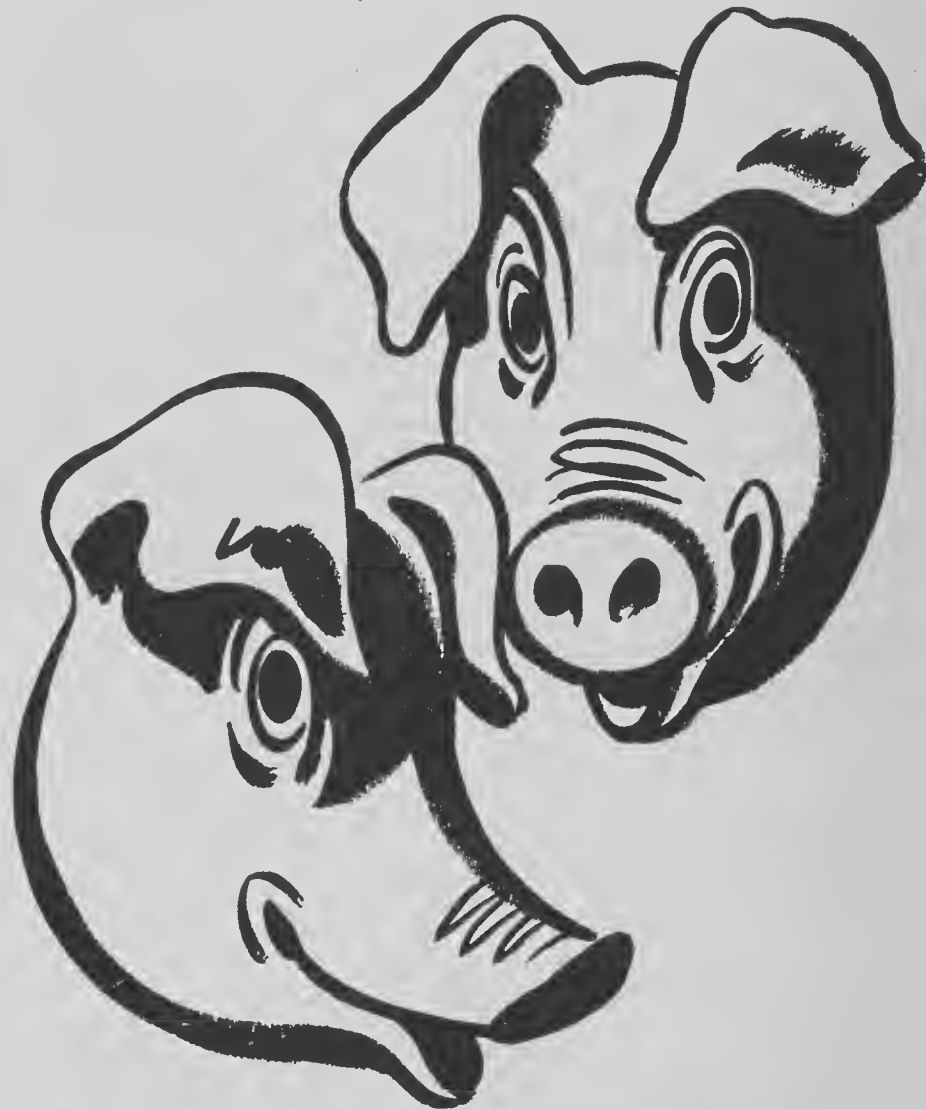
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UNDER THE PEACE TOWER

Continued from page 11

assume St. Laurent could be successful on his first trip to the people, in 1949, you then have a premier of 67, who would be 72 at the end of his first term, which is little younger than what King is now. No, the Grits don't fancy septuagenarians too much.

Much interest then centres on the auspices under which Mr. St. Laurent takes the leadership. Assuming that King the Sentimentalist gets his way. There will have to be something clear-cut, if not in writing, at least some-

thing uttered in the presence of witnesses, or something implied so as to leave no chance of doubt. Somehow there'll have to be a guarantee that St. Laurent goes in for the short term only. Otherwise, the Liberals would likely rebel, and refuse to accept St. Laurent on a permanent basis. That's why it is so important to get it all cut and dried before King moves on.

You can't get anybody in these parts to talk for publication. Even the French Canadian politicians, who are much more alert and astute than our own English speaking Canadians are, don't care to give with the words about this one. But just the same, St. Laurent's on everybody's minds. He still looks like the best bet to take over the premier-ship, if King quits any time.

Dairying in France Domestic needs vie with need for exports

By HENRI JEANMAIRE



France's dairy industry rests on the peasant woman and her cow

BEFORE the war, France ranked among the world's largest dairy-producing countries. She was the third largest in Europe, after Germany and Russia. In 1937, France had nine million cows. Eight million of these could be considered as milkers.

Milk production was in the neighborhood of 3,111,150,000 gallons, more than the combined production of Belgium, the Netherlands and Denmark. Deducting the quantities used by the producers for their own consumption and for their stock, two-thirds of the milk produced was marketed either as such or in the form of cheese or butter. Butter production absorbed about half of the total, cheese about 20 per cent.

The type of dairy-produce varied considerably from region to region. By far the greater proportion of milk was produced in the departments bordering on the Channel, each of which produced over 66.6 million gallons a year. In the west there is another butter-producing region extending from the Sarthe to Lower Charente. The dairy industry is also important in the mountainous Jura areas, in Savoy and in the high parts of the Massif Central (Puy de Dôme); but here the making of cheeses, such as the famous Gruyère and Cantal, takes precedence over that of butter. In contrast, the eight departments on the Mediterranean stand out as a region where the production of cow's milk is very low, less than 4.5 million gallons a year per department.

Between 1936 and the beginning of the war there was already a tendency

to a decrease in milk production, partly due to a reduction in exports. The war very quickly generalized the crisis in milk production, the industry suffering a loss of nearly two million milk cows through German requisitions and reduction of herds due to fodder shortage and, which was much harder to remedy, a deterioration in quality and quantity due to poor nourishment of the animals.

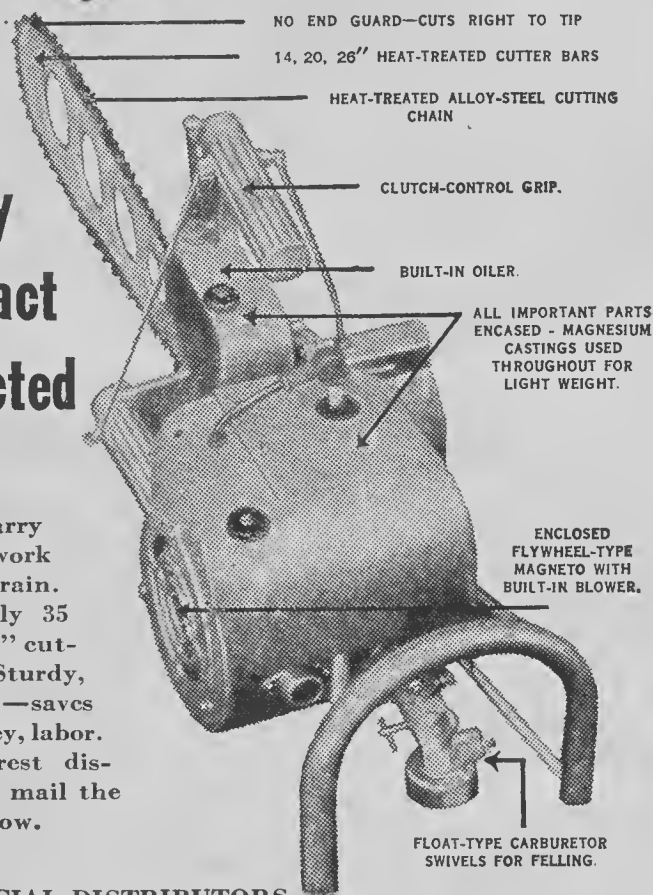
The extent of the drop in production is difficult to appreciate. Price control and the requisition of dairy produce caused a growth of black market dealings in proportion to the shortages. The situation improved a little in 1945 and 1946, but the fact remains that, with a milk output for 1947 estimated at about three-quarters that of pre-war days, the food authorities will only just manage the 410 million gallons of milk needed for children's and old people's rations. One litre (slightly over a quart) a day is allowed for infants and half a pint, generally speaking, for other categories permitted to have milk. Cheese production has dropped considerably, probably to the advantage of butter production. Butter is very scarce too, and a great part of it escapes control.

The recovery of the dairying industries and their expansion, necessary for so many reasons, do not seem to depend entirely on raising the country's stock, which is now well under way. Dairy production seems to be one of the branches of agriculture most seriously affected by the difficulty of recruiting labor, and particularly female labor in the country.

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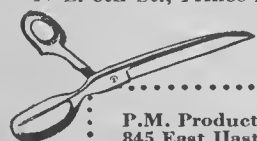
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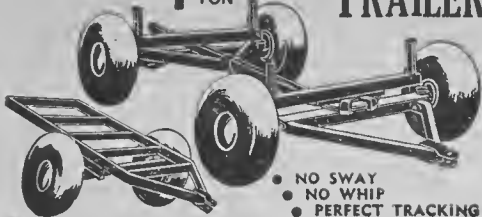
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YEAR OF DELUGE

Continued from page 5

bacon, less cheese, less condensed milk and fewer eggs to ship across the water to the pathetically hungry ones of Britain and the continent. Verily the forces of nature, here and overseas, seem to have conspired to delay recovery.

That was the way the conference called by the Canadian Federation of Agriculture had the situation sized up on June 12. It wasn't intended at first as a conference but as a meeting of the directors. But the anxiety was so keen that executive officers of other organizations, including dairy and hog producing interests, showed up. Directors Church, of Alberta and Mercer, of British Columbia, on their way back from the world agricultural conference at The Hague, were present. Every Ontario director was there and there was a good representation from Quebec and New Brunswick, including Minister of Agriculture Austin Taylor and his deputy, J. K. King.

FROM this meeting came the statement on which the preceding facts and figures are based. Included in the statement were these two significant paragraphs:

"To the eastern farmer the question of supply is very important. But it is not the only problem. No matter what is done now to meet the situation, the cost of producing livestock products in eastern Canada will have increased quite substantially by the time the reduced crop in the East has been harvested. In addition, government announcements of the removal of controls and subsidies would indicate that the drawbacks now paid on feed grains may be discontinued after August 1. Such action would increase the cost of feed oats from the prairies from 51½ cents a bushel including the drawback to 66-68 cents a bushel, and of barley from 64¼ cents a bushel to 91-93 cents a bushel.

"This is a problem of first concern to Canadian consumers of farm products because farmers cannot be expected to continue to produce at present price levels in the face of abnormal and unexpected increases in production costs."

From the meeting came also these three recommendations:

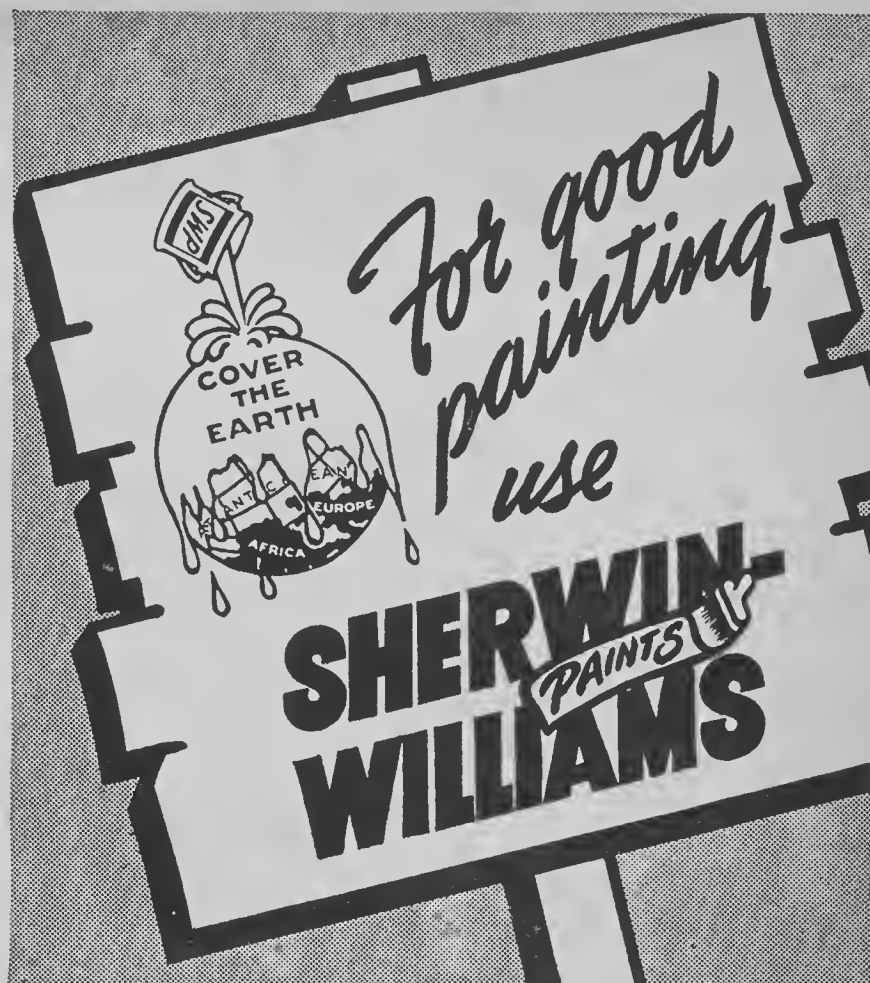
1. We recommend that the present price structure on feed grains—floors, ceilings and drawbacks—be continued until at least July 1, 1948.

2. We recommend that plans be made as early as possible for the movement of the normal supply of feed grains into eastern Canada and British Columbia.

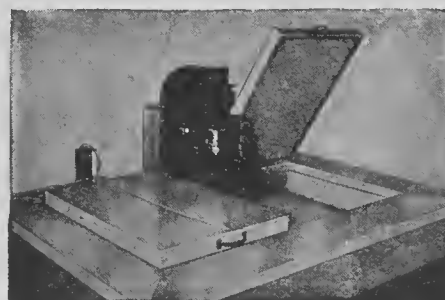
And that, in view of the emergency in eastern Canada, special measures be instituted to move the necessary additional supplies of feed grains from western Canada to eastern Canada before freeze-up, in order to build the largest possible grain bank in both elevators and farmers' bins.

3. Unless extraordinary measures such as these are taken it is our firm conviction that, firstly, Canadian consumers will suffer shortages of some farm products and face the danger of high prices in some instances; and secondly, Canada will fall down badly in her export commitments.

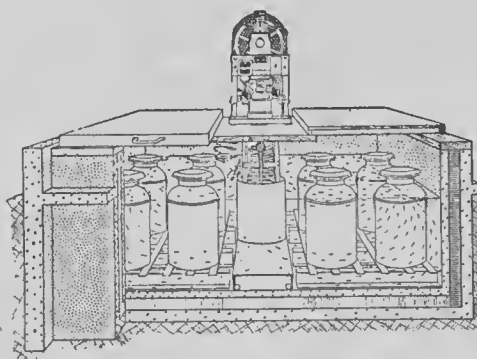
Such is the grave situation as it exists in June of this year of grace, 1947. In any case the eastern farmers will not have a satisfactory year. They will have to tell down the hard cash for scores of millions of bushels of feed that they would have grown themselves if they had had half a chance. That is if they can get the grain. If they will not be able to get it, they will have less livestock products to market and smaller returns.



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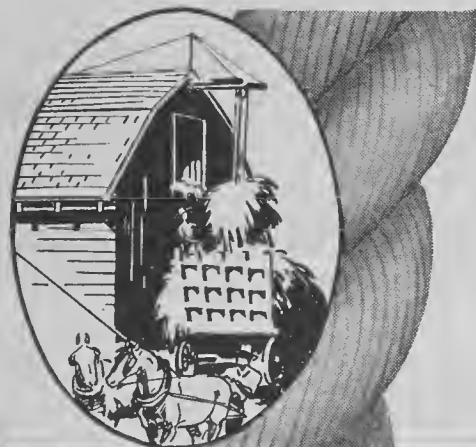
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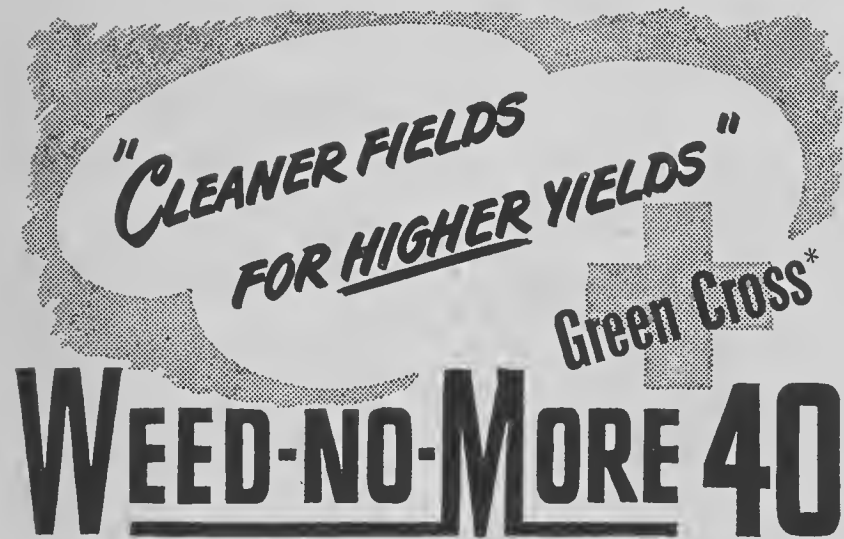


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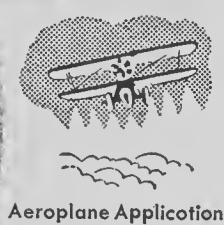
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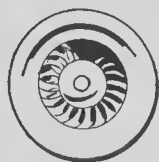
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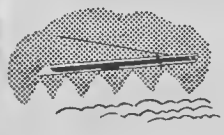
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An Interpreter Of Prairie Life

W. O. Mitchell of High River displays fine promise in a maiden novel.

By KATHLEEN STRANGE

EVERY now and again a new star rises in Canada's literary sky. The latest to shine is a prairie dweller — W. O. Mitchell, of High River Alberta—a young man who gives promise, from his first novel, of becoming one of the distinguished writers of good prose in this country, as well as one of the most faithful and sympathetic interpreters of western Canadian life.

Mr. Mitchell's book, *Who Has Seen the Wind?*, which appeared in condensed form in the February issue of *The Ladies' Home Journal*, and which has recently come out in book form under the Macmillan Company's imprint, deals with the western prairies on which he was born and with the prairie people among whom he grew up and who he so obviously understands and loves. It is a work to place him in the ranks of the finest of our prairie interpreters, along with Frederick Philip Grove, Laura Goodman Salverson, Ross Annett, Sinclair Ross and others.

W. O. Mitchell (the W. stands for Bill), was born some 33 years ago in Weyburn, Saskatchewan, of Scottish-Irish parentage, the second oldest in a family of four boys. His father was a druggist in the small town and his mother still lives there, as does a brother, who was a member of the Paratroopers during this last war.

Most of Mr. Mitchell's boyhood and early youth were spent in St. Petersburg, Florida, where he attended school. Every summer he came home to Saskatchewan for two months. Later he studied at the Universities of Manitoba and Alberta. He studied arts and majored in psychology and philosophy. Always fond of dramatics, while in Winnipeg he acted in the Winnipeg Little Theatre under the direction of the late John Craig.

AFTER graduating from university, Mr. Mitchell set out to travel. He spent some time in Europe, acting as a lifeguard in Biarritz, France. He served as deck hand on a Greek tramp steamer for a while. He went to Seattle with the intention of going to South America, but stayed in that city to work on the *Seattle Times*. While in the United States, he studied short story and play writing at the University of Washington.

Mr. Mitchell was successively an insurance salesman, a radio and newspaper advertising salesman and high school principal. Besides St. Petersburg and Seattle, Mr. Mitchell has lived in many Canadian cities, including Winnipeg, Calgary and Edmonton, and a number of small towns. His present home is in High River, Alberta, where he has a cedar-siding Cape Cod house, just completed last summer. The Highwood River flows by a matter of a few steps from his door and he can see the Rockies and the foothills from his living-room window.

This young writer is temporarily teaching high school, owing to the shortage of teachers in High River, but he intends to make writing his life's vocation from now on. For the past four years he has been contributing short stories to *Maclean's Magazine*, *Queen's Quarterly*, *Canadian Forum*, *Liberty*, *Atlantic Monthly*, and *The Ladies' Home Journal*.

Mr. Mitchell is married to a very charming, very small and very, very dark young woman, who is the daughter of a Lunenburg Dutch Baptist minister. Myrna Mitchell lived most of her life in Boston until her father came to Edmonton, where Bill Mitchell met and courted her. She is a singer and an

amateur actress of considerable talent, and she was to have gone on to a scholarship with the Provincetown Players if she hadn't got married. Her husband says he finds it difficult to believe that their two boys, Orme, aged four, and Hughie, aged one, are her sons, for both of them are fair and grey-eyed. Orme is a blocky and uninhibited little hedonist, with tightly curling hair and the build of his Belfast Irish grandfather, who was the model for Gerald O'Connell in *Who Has Seen the Wind?* Hugh is a dour, small fellow named after a High River neighbor and great friend, Hughena McCorquodale, herself, a well-known writer.

A good-looking, somewhat shy and dreamy young man, W. O. Mitchell is direct and sincere in his manner and has a keen sense of humor, as is evidenced in his book, which contains many lovely bits of subtle humor. He is slight of build, dark-haired and dark-moustached, and has the wiry physique of the trained athlete. His hobbies, besides fishing, are swimming, diving and riding. He still enjoys dramatics and delights in restoring period furniture, some pieces of which, in various stages of repair, furnish his house. He smokes a pipe, admits that he has a foul temper most mornings, and usually waits, till a week after his wife has insisted on it, to get his hair cut!

W. O. Mitchell gives much credit to Professor Rupert C. Lodge of the University of Manitoba, for the philosophical slant to his novel and to Professor F. M. Slater, who conducts a course in Creative Writing at the University of Alberta, for constructive assistance in the writing work. He began the book, indeed, at Mr. Salter's suggestion. The theme, he says, grew out of his remembrance of the day in a prairie cemetery, when he was six years old, on which his father was buried.

THE setting of *Who Has Seen the Wind?* is a typical prairie town. It has already been identified, Mr. Mitchell admits, with Weyburn, where he was born, Castor, where he had his first school, New Dayton and High River. Actually it is a composite of all the prairie towns he has "hitch-hiked through, ridden freights through, taught in and lived in." The people of High River, it is said, are torn between amazement and alarm that one of their own number should have so skilfully and so faithfully interpreted the life of a small town, which might well be their own. Let it be said, however, that Bill Mitchell is still popular there and his fellow citizens are exceedingly proud of him!

Who Has Seen the Wind? is told largely through the eyes of a small boy—Brian O'Connell, who is four years old when the book begins. Mr. Mitchell obviously loves and understands small boys—and why shouldn't he, with two such fine specimens as his own? He is a keen observer of their ways and their speech and must have taken copious notes to have reproduced them so faithfully and so affectionately.

There is no particular plot to the story. It is a novel of *ideas*. Life moves upon its inevitable course. People are born and die, the life of the town moves along, and young Brian is brought into contact with these eventualities, and with the people concerned in them, in a human and natural fashion. Through it all breathes the very life and atmosphere of the prairies themselves—the smell of the good earth, the scents of the fields, the songs of the birds, and particularly the sound of the wind,

which is used as a sort of symbol throughout the book.

As Mr. Mitchell himself says in his preface:

"This is a story of a boy and the wind. I have tried to present sympathetically the struggle of a boy to understand what still defeats nature and the learned men—the ultimate meaning of the cycle of life." The book is intended to reveal, through the eyes of a sensitive child "in moments of fleeting vision, the realities of birth,

hunger, satiety, eternity, death."

Of *Who Has Seen the Wind?* Mr. Edward Weekes, Editor of *The Atlantic Monthly*, said: "This is the most remarkable novel we have had from a Canadian since Mazo de la Roche walked into our office in 1927!"

Requests have already been received for translation rights for Portugal, Brazil and colonies, Denmark, Sweden, Norway and the Argentine. There is little doubt but that the book will be made into a movie soon.



Forest fire at Buck Lake, Alta. (Photo by Jack Church, Winfield)

An Inland Valley Cheese Factory

Remote B.C. cheese factory turns out important volume of high grade product

APPROACHING Armstrong, B.C., from the south, you see a neat stuccoed building on the left, partly hidden by evergreen trees. "Armstrong Cheese Co-operative" you read on the front of the building. You wonder how such an apparently small valley can support enough cows to supply a cheese factory. It is hilly country, much of it heavily wooded, and across the road to the east is a mountain, which no doubt is farther away than it looks, but it does limit the territory covered by the milk delivery trucks. In three directions instead of four.

The old saw that appearances are sometimes deceiving certainly applies in this case, for I learned that in 1944 this cheese factory had the fourth largest production of any such plant in Canada. Some 200 farmers supply the milk out of which the cheese is made. Not many send in a large quantity—the largest shipper sends about 500 pounds per day during the peak season. Many send in less than half a milk can full, or what they can spare from two or three cows after the family's needs are supplied.

At work in the plant I found Joe Mullens, a cheese maker, and factory manager. He gave a very interesting description of cheese making from the time the milk comes into the receiving room until the cured cheese is ready for you and me to eat. The milk trucks pick up the milk at the farms, over an area seven miles west, south and north of Armstrong. In order to ensure strictly fresh milk it must all be at the plant by 10 a.m.

Most of the processing is done in one of the large vats, into which the milk is run as soon as it is received. A culture is added to develop acidity, and it is heated to a temperature of 86 degrees F. Color then is added, and rennet, to induce coagulation. In half an hour coagulation is complete, and by means of two wire knives, one vertical and one horizontal, the curd is cut into quarter inch cubes. It is now very soft and is kept in suspension in the whey by means of constant agitation.

The next step in the process is known as "cooking in the vat." The temperature is raised to 100 degrees, and kept

at that point for about two hours. Then the whey is drawn off and the curd in the vat is ready for "cheddaring."

"During this stage the curd all mats together," Mullens said, explaining the particular way in which cheddar cheese is made. "We cut it in slabs, turn it over, pile it up, so we can handle it. This also lets the moisture drain out."

His process requires about two hours. "When cheddaring is complete the mass is put through the curd mill, where it is shredded and cut up into pieces about one-half by one and one-half inches. In that condition it remains for another half hour, where we occasionally turn it over with forks. Here, too, salt is added. When the salt is properly mixed and dissolved the curd is put into hoops or forms and put to press."

Under the intense pressure in the press (said to be about 10 tons per square inch) most of the remaining whey is forced out and it becomes sufficiently firm that in a half hour the cheesecloth which had been around it can be removed. It goes back then to that terrific pressure until the next morning.

One of the first jobs the men have when they come to work is to take the cheese out of the press. Is it ready for storage now? No, each cheese is turned over, and put back again. Just before noon it is removed from the press for the last time and placed on a shelf in the storage room.

They must be turned on the shelf every day, and after drying for three days are taken out and dipped in a tank of hot paraffin. In 10 days they may be boxed and shipped to Vancouver, where nearly all of the plant's production is cured.

"Nine-tenths of the milk is whey," the cheese maker said. "Our patrons get this important by-product of cheese making, which they use in feeding livestock, especially pigs and chickens. But before giving it to them we put it through a cream separator. Three pounds of butterfat are recovered from each 1,000 pounds of whey. That may scarcely seem to be worth the trouble, but it amounts to \$4,000 or \$5,000 each year."



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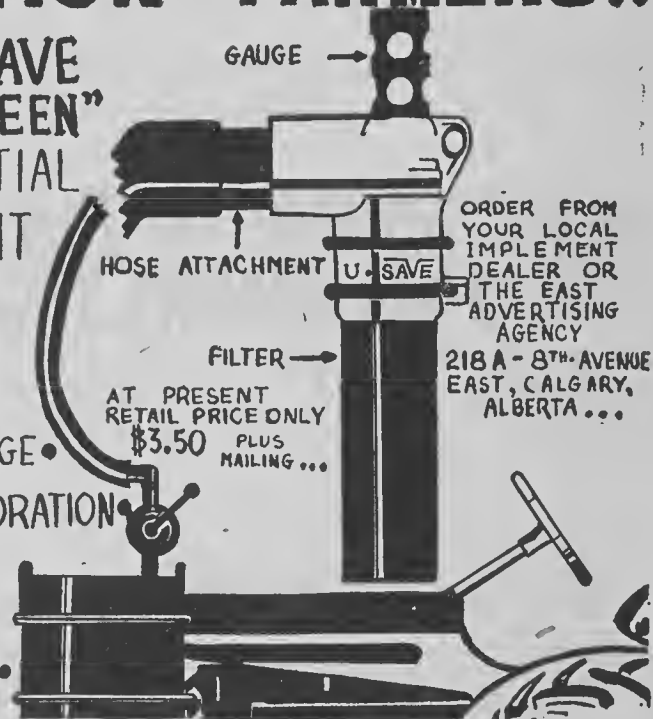
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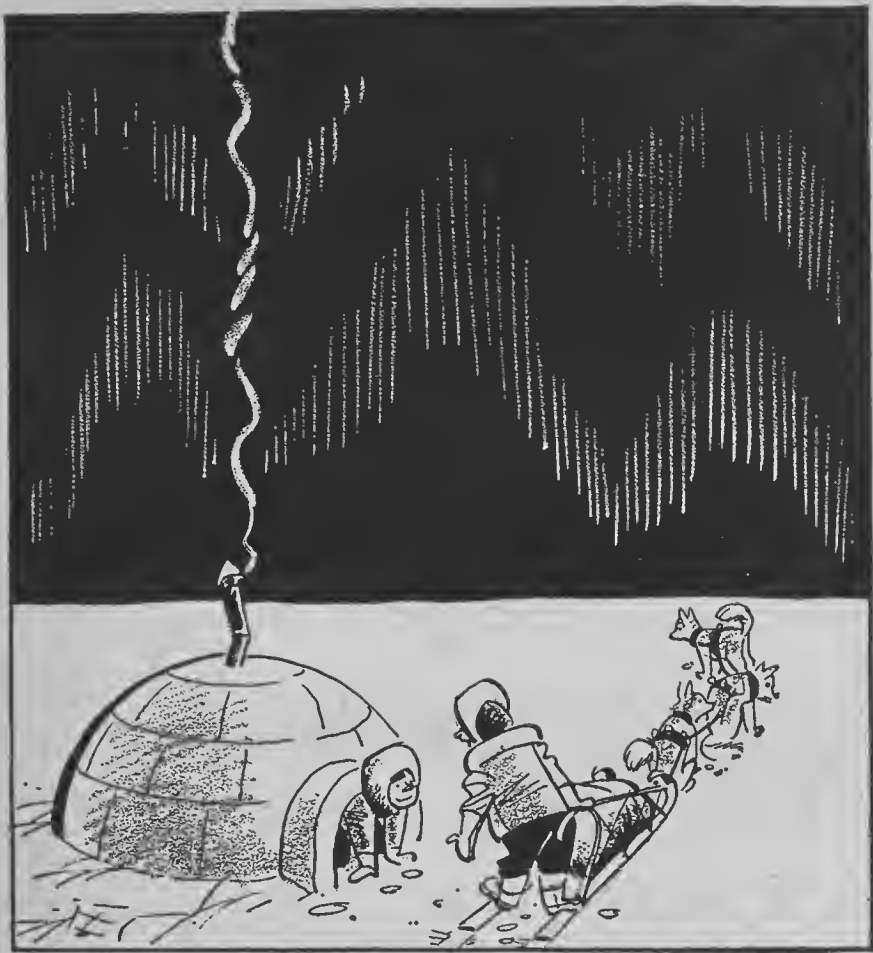
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GREEN GRASS OF WYOMING

Continued from page 9

once held a filly from England, consigned to Beaver Greenway at the Blue Moon Ranch in Idaho. Ken heaved a deep sigh. He could deduce no more, but it was enough to make him feel that, by chance, he had come in contact with important events and important people.

He had a sudden sense of time passing. He was expected home for lunch and he had not yet done his errand at Joe Daly's.

He hurriedly mounted Flicka.

WHEN Ken reached the Daly ranch house—a one-story building of rough logs with a rickety porch—and put Flicka's nose to the stack of hay in the yard, he heard voices. Buck was home, then. He felt a little glow of pleasure. Buck Daly, Joe's son, was a friend. He looked like an Indian, small and swarthy and expressionless, and he had an Indian's skills. He had taught Ken and Howard McLaughlin how to trail animals on the prairies, how to trap beaver and mink, how to poison coyotes.

Ken's loud thump on the door was answered by Joe.

"Come in! Come in! We're jess settin' down to dinner. Hev a bite to eat with us."

Ken greeted Joe and Buck and cast a glance at the repast spread on the kitchen table—beans, white bread and jam. He answered, "No thanks—I've got to get home for dinner. But I'll sit down a minute."

A big pot of coffee had been dragged forward on the stove. It sat, ustally, on the back, half-filled with old grounds that were boiled up again whenever a fresh cup was wanted.

Buck set a cracked cup and saucer before Ken and filled it.

Joe Daly, who had a long quivering face with lips turned in, and colorless red-rimmed eyes, was bubbling with news. "Say! What d'ye think Buck seen this morning!"

Ken had been about to spring his own bit of gossip about the crate, but he stopped and looked at Buck's oily dark face inquiringly. Buck was shoveling beans into his mouth with his knife.

"Tell him, Buck," prodded his father.

Buck wiped his mouth with his hand and leaned back in his chair. "This mornin' early, I wuz upon the hill there," he made a wide gesture with one arm, "where I got my coyote bait put out. I wuz standin' fixin' the bait—rollin' the pizen into the balls of lard, w'en I heerd a stallion scream."

"A stallion!" Ken was interested. Except for Banner, his father's purebred stud, there were no stallions that he knew of in the neighborhood.

"An' I tuk a look around," continued Buck, "an' way down by the railroad tracks I seen a queer-lookin' box—"

Ken interrupted excitedly, "I saw it too! On the way over—I was going to tell you about it! A bashed-up horse crate!"

"It wasn't bashed up w'en I fust seen it. The stallion did the bashing. He wuz goin' round and round it and they wuz another hoss watchin' him—a big feller—looked like Pete. All of a sudden the stud turns hisself aroun' and kicks hell outer the crate. It opens up and out jumps another hoss, all dressed up in a blanket and they runs away together, and after a while, Pete follows 'em slow like."

Buck tilted his chair back, reached to the stove for the coffee pot and refilled his cup.

"Holy Cats! Then the filly was actually in the crate while it was rolling down the hill!"

"Sure wuz," said Buck, going at the beans again. "But wait—I ain't told ye the best of it yet."

"Tell him, Buck, tell him!" chortled Joe.

Buck finished the pile of beans on his plate, then glanced up, his small black eyes expressionless. "Waal—here's the joker. Who d'ye think the stallion wuz?"

"Who?"

"Your stallion. Thunderhead."

It was a shock to Ken, for Buck said it with certainty. A second later, Ken shook his head. "No it wasn't, Buck—it couldn't have been."

Buck took a piece of bread, made a mon of it and swabbed his plate. "Why not?"

"Because Thunderhead isn't anywhere near here."

"That's wot I tole Buck," put in Joe. "He's up in that there vallev in the Buckhorn Mountains, ain't he? What d'ye call it?"

"The Valley of the Eagles," said Ken and he said it with pride, for it was he who had first discovered the valley and given it its name. "Yep, he's up there and he can't get out and I saw him there not so very long ago."

"W'en?" asked Buck.

"I went up there when I got home from school in June—the last week it was, I guess."

Joe looked anxiously at Buck to see what he made of that. Buck shook his head. "That's quite a spell back, Ken. Thunderhead might have got out since then."

"He wouldn't leave his mares, Buck—y'know that."

"That's right." Buck puzzled over this. "How many mares did he have?"

"About twenty," said Ken.

"Mebbe he come out to git some more. He wuz stealin' a mare w'en I seen him this mornin'. Mebbe he's been out all summer, rampagin' around, stealin' mares like that old-timer, the Albino, uster—the mustang he's a throwback to."

Ken shook his head. "Nothing would make him leave that valley."

"Couldn't he leave it ef he tuk a notion to?"

"Not at the near end of it where I dynamited the only passage that leads into it."

"Ken," said Joe, "I never could figger why in tarnation ye done a thing like that."

KEN, always ready to talk about the exploits of his wonder horse, explained. "You see, he'd had that fight with the Albino up in that valley, and he'd killed him. And then he'd taken his mares and lived with them like a range stallion for a while. He wasn't just a baby colt any more. If we'd brought him home, and put him out at pasture with our other horses, what would he have done to Banner?"

There was silence in the dark little kitchen for a while. Every man there knew what would have happened to Banner; and it wasn't good to think of.

"I reckon ef Thunderhead did anything to Banner yer Dad would jess take his big Express rifle an' put a bullet through his head," said Joe.

"He sure would."

"I niver seen a man love a hoss the way yer father loves that red stallion of his'n."

"You c'd have gelded Thunderhead, Ken," said Buck. "Then he'd be safe."

Ken's mouth tightened. "I don't want him gelded—ever. It might kill him—it often does."

"Aw, Kennie—on'y now an' then," said Joe.

Ken's voice rose. This issue of whether or not Thunderhead should be gelded was one which had come up between him and his father over and over again. So far, luck had been with him. "Look here!" he shouted. "I saw that fight between Thunderhead and the Al-

bino! Those two horses stood up on their hind legs and screamed at each other like prehistoric monsters! And then Thunderhead killed the Albino! Could he have done that if he had been gelded?"

Considerably overawed by Ken's large words and flashing eyes as well as by the picture he evoked, his listeners made no answer. Then Buck returned to his point. "Couldn't Thunderhead have left the valley at the other end, even if he couldn't git out where you blasted the path shut?"

Ken calmed down. "Oh, sure! Down at the far end there are a lot of gorges and ravines he could get out of, if he wanted to, but why would he? He had everything he needed there—food, water, shelter. And what would he do with all the mares and colts?"

Buck thought this over, drawing the jam pot to him and taking several big spoonfuls.

"Must have been some other horse you saw," said Ken.

Buck said, "Ain't no white stallion round yere 'cept yore Thunderhead."

"How far away were you?"

"About two mile."

"You couldn't tell at that distance."

"Could tell it was a white hoss."

"Say," said Joe, "how about them two white hosses of Bill Olcott's? They're often out on the range."

"I tole ye I heered him neigh—an' not like no work hoss neither," said Buck.

"Did you go down to the crate?"

"Sure. Comin' home. I seen the cushions inside an' the photygraph an' all the fancy fixin's. Some class!"

"Son," said Joe, "pears to me like ye ought to git word to the station agent wot happened. They've likely missed that hoss awready."

"That's right. I could ride to Red Buttes?" suggested Buck.

"Fifteen mile there an' fifteen back!" said his father. "An' noon now, an' a day's work waitin' fer ye on the fences—no siree!"

Buck looked crestfallen and Ken grinned sympathy.

"But," said Joe, "ye better take yer pony an' ride over to Satterlys—that's on'y a mile—they'll let ye use their telyphone—and git word to the station-master at Red Buttes. This is gonna make some stink an' yo're an important witness. That crew in the caboose is gonna git hell, believe me!"

"Okay." Buck began to carry the dishes to the sink.

Ken got up and took a few steps to ward the door. "Guess I'll be going, Joe."

"Ain't you goin' to take a look at yer rams?" asked Joe.

"Oh, gosh! Sure! That's what I came over to see you about! I almost forgot!"

WHILE Buck made the few swift gestures which passed for dishwashing in the Daly house, Ken and Joe walked out around the house, past the barn

and pigsties and corrals to the quarter-mile of good pasture land which Joe had fenced in with three-foot hog wire. They leaned against the gate.

The handsome Corriedales were grazing quietly, scattered over the pasture. Ken's eyes dwelt on the symmetrical, curving horns, rising from the thick curly wool. They reminded him of something he had seen once in the Valley of the Eagles when he had gone there to look for Thunderhead—a fight between two Rocky Mountain horned sheep up on a ledge on the mountain-side. One had killed the other and shoved it off the ledge. Eagles had plummeted down into the forest, had torn the dead ram to pieces and carried huge chunks of it to their greedy eaglets in the eyrie.

"I bet they get into some big fights," he said.

"Sure. Ever' week, about, I hears them big booms! An' I have to go out with a club an' break it up."

"What I came over for," said Ken, "was to tell you, Dad wants them to have increased feedings from now until breeding time."

"Cotton cake?"

"Yes. He's ordered five tons. When it comes, Gus'll bring it over in the truck. He wants you to give them a sack a day."

"That'll put the juice into 'em."

THEY walked back to the house. Buck was just mounting his pony. Ken said goodbye to Daly and the two boys rode together until their ways parted.

As Buck left him, Ken turned in his saddle and called, "Say! Buck!"

Buck halted.

"You don't really think that was Thunderhead, do you?"

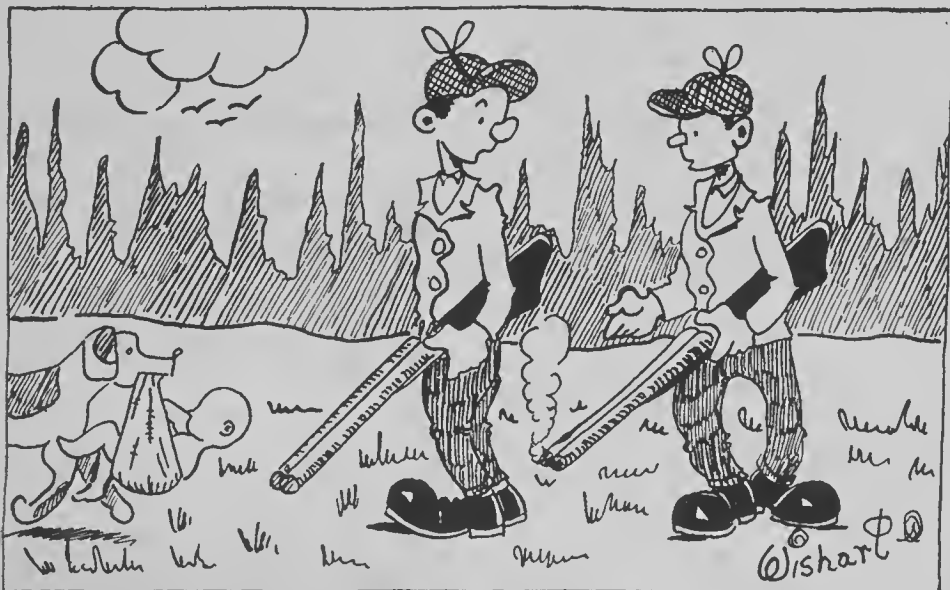
Buck ruminated for quite a while before he answered. "Mebbe not, Ken." He started off again. A little farther on he checked his horse and called back, "But he wuz white. An' he wuz a stallion."

Ken cantered homeward in so great a state of confusion that he forgot all about his dinner in spite of the pangs that were gnawing his stomach.

One moment he utterly disbelieved Buck's surmise; the next he was in agony for fear it was true.

On the subject of what should be done with Thunderhead, there had been a long running fight between himself and his father ever since the horse had been born, four years ago. Bob McLaughlin insisted that, the colt being a throwback, he would always be uncontrollable, and, unless gelded, a menace to Banner and no use as a saddle horse.

Ken's action in putting Thunderhead into the valley to take the place of the stallion, the Albino, whom Thunderhead had killed, and then shutting him in there with the mares, had seemed to solve the problem. Thunderhead was happy, all was quiet on the Goose Bar, and Ken, although he no longer had



"... You must have shot a stork!"

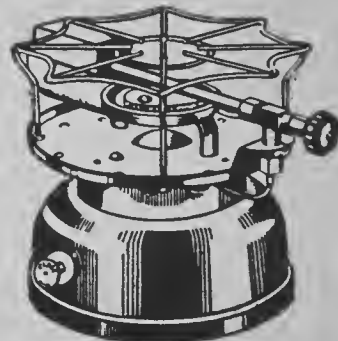
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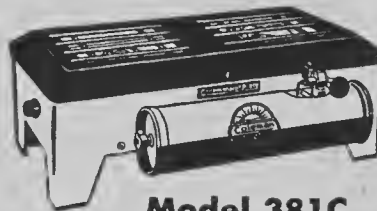
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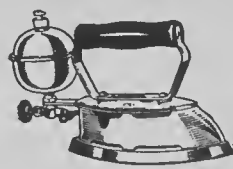
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the daily use of him, yet knew that the colt was living the life of a natural, unaltered animal; and this satisfied the boy in a very deep way. He had been profoundly affected by the beauty of that valley and the way the Albino lived there, like a king. If he could give such a life as that to the horse he loved so well, he would have given him the best there was.

But if Thunderhead had left the valley! If he were out!

Each time this thought came, there came with it an anguishing physical pang. He began to look desperately around for food. Tie Siding was not far away. He had meant, in any case, to pick up the mail before he went home.

He searched in his pockets for money. A dime in one—three pennies and a two-bit piece in another. Slightly cheered by this wealth, he altered his direction and soon was seated at the counter of the little short-order house in Tie Siding, wolfing sandwiches.

HE looked out of the window. It was a dreary enough spot on the sunniest day, just the square box of a Post Office, the little store beside it and across the tracks, the station. Today, with the wind blowing dust and trash along the ground and no color in sky or earth it was depressing and gave him a foreboding.

Suddenly Ken slid down from his high stool and ran to open the door. "Howard!" he yelled.

The tall fellow who was just getting out of the Goose Bar station wagon turned. "Hi, Ken! Why didn't you come home for lunch?"

"Didn't get through at Daly's," said Ken. "I'm having a sandwich here, now. Come on in. Got something to tell you."

"I'll get the mail first," said Howard, going toward the Post Office.

A few moments later, Howard, who had just finished a hearty meal at home, was ordering coffee and doughnuts.

Howard McLaughlin, at eighteen, was two inches taller than his father. He had a merry, gibing face and was considered handsome. His black hair was parted in the exact centre, his clear, light blue eyes had an inscrutable expression, his thin red mouth went down at one corner.

"Hurry up," said Ken nervously. But his brother was looking through the mail. There was a letter for him, addressed in large feminine handwriting. He shoved the rest of the mail into his pockets and opened and began to read his own as he sipped his coffee.

Ken paid his check, went out and stood waiting by the station wagon. This behavior brought Howard out in a hurry—Ken was certainly being mysterious about something.

The boys got into the front seat and Ken poured out all he had seen and heard that morning.

Howard's eyes lighted with interest. "Gosh!" he exclaimed. "A filly of Beaver Greenway's! It sure looks like your colt has got out of that valley and you're in for it, Ken."

"Got any money?" asked Ken.

"What you want it for?"

"Want to buy some more sandwiches. I'm going up to the valley to see if he's there or not."

"Without going home and telling Dad? You'll get hell."

"I'm going to get hell anyway—and plenty of it. Look, Howard, I've got to go. But don't tell Dad anything about it—about what Buck saw—about the crate or anything."

"Why not? He's going to know, isn't he?"

"But Howard, he'll get all stirred up about Thunderhead. And maybe it wasn't Thunderhead after all. I don't see how it could have been. I bet when I get to the valley I'll find him there. But even so, Dad'll still be stirred up

and mad at me because he got stirred up."

"What'll I tell him?"

"Oh, tell him something—you know—figure something out."

For some time the boys argued about just what could be told their father with honesty and yet the proper amount of concealment. At last Howard promised, Ken stuffed his pockets with sandwiches, mounted Flicka and turned her head south toward the Buckhorn Hills.

THE corral of the Goose Bar stables was full of men and horses. Rob McLaughlin, called Captain because he was a West Point graduate and, if he weren't a captain, at least looked the part, had done his haying late, this year. The hay crew had just been dismissed. Today, Tim and Wink, the two young hired men, had been working on the stacks, shaping them, binding them down with long wires upon the ends of which were fastened railroad ties as weights. They were now unharnessing Big Joe and Tommy from the light wagon which had carried their tools.

Ross Buckley, broncobuster and wrangler, a bow-legged wisp of a man in faded, skin-tight bluejeans, was leaning against the fence, rolling himself a cigarette before he rubbed down Senator. Senator was one of six horses who were being prepared for sale to the Army, and Ross Buckley had been hired by Rob to do the job. Senator was weary after the going-over he had received, and stood near Ross with his head hanging. Knowing that Ross' arm was looped through the rein, he made no effort to move.

Rob McLaughlin was talking with Gus, the Swede, who was his foreman. Rob had just returned from a long ride and stood in worn and wrinkled leather boots that were mellowed to a rich, old oak shade. Dust was thick in the creases. Heavy spur chains went under the insteps. The whipcord breeches were tight around his slightly bowed knees; a chamois-skin lumberjacket was snug around his powerful body. He was burned a rich bronze up to the line where his wide felt hat gripped his brow. Deep under his black eyebrows were points of blue, keen and challenging. Howard and Ken often found it difficult to meet their father's eyes.

Two summers before, Rob had shipped East for sale every horse on the place except the spring colts, the yearlings, the two-year-olds, and four horses for the use of the family: Flicka, her son Thunderhead, her daughter Touch And Go, and Gypsy, Rob's own aged saddle mare, a relic of his youth. Of these four, there was now only one left, Flicka. Gypsy was dead, Touch And Go sold, and Thunderhead in the Buckhorn Mountains. But the young stuff growing up had provided them with new mounts. Rob had Mohawk, a big blood-bay gelding who was now standing at his shoulder. Howard had Sun Dog, and Nell McLaughlin, mother of the two boys, had a rangy sorrel who was named Redwing after one of the best horses ever raised on the Goose Bar Ranch.

Rob and Gus were examining the weather, planning the next day's work. "We'll bring Banner in to the corral in the morning," said Rob, "and get those two mares bred."

"Yah," Gus nodded slowly.

"Then in the afternoon we'll brand the colts."

"Gude weather fur branding," said Gus.

"Some time this week," said Rob, "Colonel Dickenson, the Army Remount Officer, is coming out to look over the geldings. Keep them all pretty close to the corral."

Gus nodded, his eyes roving observantly over the men and horses while he listened to his boss.

Kim, the yellow collie, lay on the grass outside the fence, panting vio-



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lently, his long red tongue hanging out of the side of his mouth. He had been out with Rob and had gone off on some wild coyote hunts that had taken him far afield and worn him out. At intervals he heaved himself up, went to the horse trough which brimmed with cool spring water spilling a musical trickle out at the lower end, and noisily lapped, then returned and flopped on the ground again.

Pauly, a little brown tortoise-shell cat with long topaz eyes, appeared in the stable door, and stood there with dignity, looking out into the corral. In her mouth she held a large rat, still alive, and her head was high to carry the weight. She stepped daintily across the threshold, past the manure pile, and threaded her way between the horses' feet to the fence, jumped the lowest rail, and passed Kim, who turned his head to watch her and the rat but did not close his mouth nor cease his panting. Pauly plunged into the deep grass and disappeared from view. All eyes had followed her.

"See that big rat!" exclaimed Wink. "She get one yoost about every day," said Gus.

"She's got kittens," said Tim, "and she hunts rats and bunnies and gophers all day for them."

A loud, indignant moo-oo-oo came from the east corral behind the barn.

Rob looked at Gus in surprise. "What in hell are the cows doing up here?"

"It ain't our cows, Boss. Some of Johnson's cows broke tru de fence in de corner of Section Eighteen. Nine white faces and some calves. Wink and Tim found 'em and corralled 'em. Want I should tell Wink to drive 'em back?"

"No. Wink's got to milk. I'll send Ken."

"Ken ain't home yet, Boss—least-ways, Flicka's not here."

"Howard, then."

"Howard—" Gus looked searchingly around, "I ain't seen him neither."

"There's his horse." Rob pointed to a tall black, grazing in the pasture outside the corral.

"He tuk de station wagon."

"To get the mail?"

"Yah."

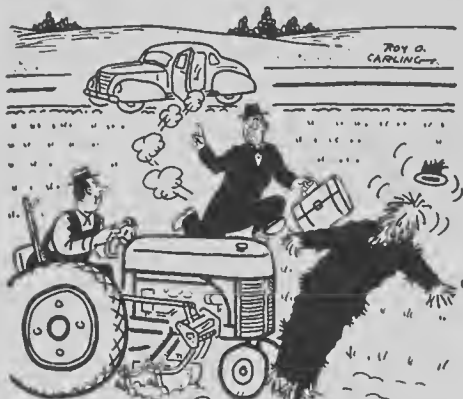
ROB gave an impatient exclamation. "And now it's milking time. When those kids get off the ranch they don't ever get home!"

"Dot's kids for you," said Gus, a slow warm smile crinkling his pink face.

Rob put the reins of Mohawk in Gus' hand. "Give him a good rubdown and be sure none of the horses can get out into the home pasture where they would get mixed up with Banner. Don't want any trouble."

"Yah, boss." Gus took Mohawk's rein and led him into the stable.

Rob stood a moment, thinking, aware of the two blue jays squawking angrily at each other in the big pine south of the stables, of a flock of little birds splashing in the trickle of water that spilled from the trough, of the familiar smell of manure, of steaming horse-



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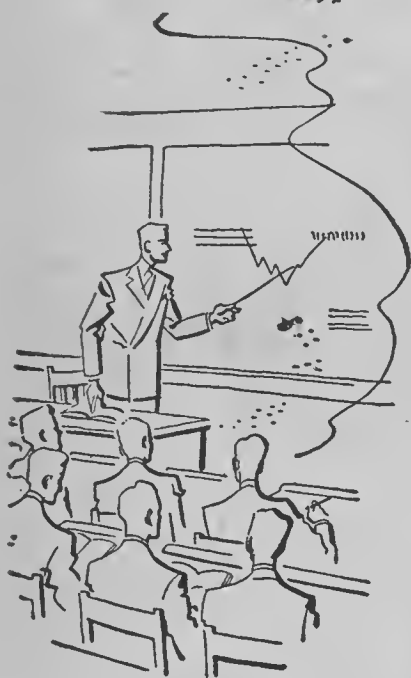
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hides, of corral dust—he was annoyed at the failure of the boys to show up.

He strode suddenly forward and Kim arose and ran around the corral to follow.

As they went down through the Gorge toward the house they were joined by Chaps, the black cocker spaniel, so named because of the long black curls on his legs. He was a tardy homecomer from the run with Rob and Mohawk. Chaps, in spite of his short legs, must be on every ride, every hunt, usually getting home long after the collie or the horses.

As a matter of habit, Rob lifted his eyes to the sky and examined the weather with thought of tomorrow's work.

THE cows were waiting at the gate of the pasture to be milked. Formerly, Nell had taken complete charge of the dairy. But now there was the baby, Penelope Margaret, named after Nell's mother and his own, and her care took most of Nell's time. Rob had taken over the cows and the dairy himself. He thought with satisfaction of the fine crop of calves. The bull, a handsome Guernsey named Cricket, whom he had bought as a calf from a famous Star Valley, Wyoming, herd, was giving results. He was a four-year-old and already his first calves were milking and the butterfat was high. But the bull was getting bad tempered—better put a ring in his nose. He'd neglected that.

He reached the paved yard behind the kitchen door of the house. Nell would be upstairs with Penny. Soon now, she would give Penny her bath and her supper.

At the thought of Nell, he became motionless. There was a look of puzzlement on his face. . . . Nell! How quiet she was these days. She didn't look well. She'd always had a tendency to have circles under her eyes but since Penny was born, they had been blue and transparent. Or was she worried? Dissatisfied? Had he fallen down on anything he should have done? She couldn't be unhappy now—not now—why, he had given her the piano! She had a cook! And two new bathrooms and a furnace had been installed since the new band of sheep had brought prosperity to the Goose Bar Ranch!

The look of anxiety was wiped off his face as his mind ran over the score. He beamed with satisfaction, took a rag from a hook inside the laundry door and wiped the dust off his boots. Leaning over the outside faucet, he let the cold water run and sloshed it over his face and arms. Then he scrubbed his hands and dried them on the towel which hung inside the door.

The Goose Bar ranch house was as pretty, these days of prosperity, and as cared for, as a lovely woman. It was a long house, for the most part not more than one room deep, and it went down in steps following the contour of the ground, one step down from kitchen to dining-room, another step down to living-room and Rob's study, another to the far wing which consisted of a couple of bedrooms and a bath. A 12-foot terrace ran the full length of the house in front, the far end was shaded by a pergola. The terrace was supported by a low wall of beautifully laid stone and tucked under and against this was a wide flower border, a riot of color for all of the short summer, unless frost or snow or hail cut it down.

The door of the house opened directly into the living-room from the terrace and was a heavy-paneled Dutch door, cut in half horizontally. The bottom-half was usually closed, the upper-half standing open. Window boxes holding masses of dark salmon geraniums were underneath the long casement windows which opened onto the terrace, and these boxes and the doors were the color of the sky, or of the bluebirds that came in whole migra-

tions to swing over the Green or shelter themselves against the cold in the big barn. The roofs of the house were of the soft shade of red which is the standard color for American barns. The house itself was made of granite, a soft, dusty shade of pink. And the terrace steps, hewn of rough stone and flanked with lilac bushes, led down to the lawn, two acres of it, which Nell called the Green, after the little village greens in her native state of Massachusetts.

Beyond the Green was the hill rising abruptly, terminating in a sheer cliff, all of it clothed in pine. The tall points of the pines made a jagged outline against the sky. When there was a high wind, the pines roared like surf.

Rob went around to the front. Down the length of the terrace, he walked in fragrance and color between the geraniums of the window boxes and the massed flowers of the border beneath the stone wall. Still in bloom! This cold hadn't nipped them—not yet! But if snow came, goodbye to the geraniums and all the rest. He remembered the autumn when Nell had laid blankets over the window boxes, hoping to tide the flowers through an early snow and have them for weeks more of Indian summer. The sweetness of the petunias filled his nostrils. He thought that the smell had the quality of innocence and that it drew one back to childhood. It went away with his thoughts of Nell and little Penny. As always, when anything reminded him of Nell or he saw her unexpectedly, he felt happiness so intense it was like pain.

ROB went into the house and stood at the foot of the stairs, listening, wondering if Nell were taking a nap, but no sound reached him. He returned to the living-room and paused beside the piano, his hand caressing the polished surface. His pride in this gift to his wife was accompanied by chagrin that for so many years of her life with him she should have been without one.

When he had taken her from her comfortable home in Boston 20 years before, and brought her to this ranch, he had never intended that she should be deprived of her music as well as all the other inevitable deprivations. He had intended buying her one that first year; then, the next year. Then came a baby; a year later additional investments in brood mares. Then another baby; then a year of losses and debts, and so it had gone. And for the last eight or ten years, things had been so bad that such an expensive and extravagant purchase as a grand piano was not even to be thought of. It was never mentioned. He had wondered if she had missed it dreadfully. You couldn't tell. She never spoke of it. He had believed, when he thought about it, that she was so perfectly resigned to the alteration of her life and circumstances, so absorbed in her daily work, so entranced with the wildness and beauty and epic grandeur of the country in which her lot was cast, and above all, so passionately loving of her two boys and of himself, that not even within herself was there any lamenting.

All the greater, then, had been his happiness when he counted up the first crop of lambs from his new flocks, and realized the time had come when he could give Nell a piano.

He had told her only that he had to go to Denver to arrange with a commission house for the sale of the lambs and that he might be gone for several days.

He had spent the time with the leading musician of Denver, a celebrated pianist, who went with him from one store to another. They sampled every second-hand grand piano of good make which was advertised for sale. The one they had picked, at last, was a reconstructed Steinway, 25 years old, embodying a number of advantageous features which newer makes did not have.

The last owner had been a music teacher. Before that it had been owned by a virtuoso who had returned to Europe. It was he who had discovered the piano and had it completely reconstructed. Now it was standing in a storage house, waiting for a new owner—a long, shining, concert grand.

ROB maneuvered to have Nell away on the afternoon that the big truck rolled up to the front of the house and disgorged the piano. When Nell returned it was standing in place, the lid open. Rob himself sat near by in his pet armchair, in a carefully casual position, a pipe in his mouth, newspaper in his hands, his leg slung over the arm of the chair.

But he couldn't keep up the appearance of casualness when he saw Nell's amazement. He jumped up and kissed her hard. "Go try it!" he ordered.

She had gone slowly, almost fearfully, to the piano bench, pulling off her gloves. Then, a hand on each side of her gripping the bench, she had just stared down at the keys.

He had stood beside her, bursting with happiness. "Try it! Try it!" he had urged her.

She put her right hand on the keys, then dropped it in her lap. "I can't," she said.

He stood silent, aware of her emotion.

"If you would go out—" she said hesitantly, and he had gone out and stood on the terrace, looking around, drawing deep breaths of pride and triumph. But all his attention turned backward, listening for the first note of music.

It seemed a long time coming. A few single notes, as if she were feeling for the tone. There it was! Rob's skin tingled! The glorious depth of it. The long sounding of the string! Then in a rush she played a few chords, a scale. Her fingers stumbled a little. Now she was playing just two notes, a fifth in a low register. She played it supplicatingly, over and over again, as if she were begging the piano to give her its real voice, not just to suffer her attack upon it. And at last through those two notes, Rob heard the true voice of the piano. He went slowly back into the room. She did not know he was there. Her face was rapt. She sat with one elbow propped on the rack, her head leaning on her hand, the other hand playing that low fifth with a deep, gentle touch, over and over.

At last he couldn't help asking her why she kept playing just those two notes, and why there were tears in her eyes. She tried to explain and every word made him happier because he saw how much it meant to her and how great a gift, therefore, he had been able to make her.

SHE explained hesitatingly, as if she were feeling her way through the thoughts. "I learned to do this when I was a child. By the hour. It is as if we know so small a part of life and of the universe and all that is. This world, all worlds, heaven, hell—whatever there is in the way of worlds and universes and life! How little we know! We cannot know more. We're not constituted to know more, and yet we can't help wishing we could. Well, music hints at all that we cannot know but just dream of. If I sit playing one chord over and over, listening with an absolutely blank mind, it does something to me. Deep down. I don't know what, but it is a marvelous emotion. Everything falls away. And I begin to be aware of the depths of things—I don't know what to call them. Perhaps beauty. Perhaps love. Perhaps an immeasurable longing. Of the final deep and dreadful and marvelous things that would be too much for human beings to bear if they did know of them. Yes—that's it, through these two notes, I get a message, a promise, a terrible enticement."

As she talked, she kept playing the notes, and her voice died away and he saw that she had forgotten him again, sitting there absorbed, listening. . . .

A moment or two later she began to laugh and said, "I wonder how I can train Redwing to love my music? I might tie him to the pergola out there so that he could put his head in the door and see me playing and hear it!"

And Rob had answered, "No, you'd have to be with him, close beside him, both of you hearing music together. Then he'd associate you with it."

"I'd have to be twins," laughed Nell. "Oh, Rob! I'm so happy about this I could die!" And she had jumped up and hugged him like a kid.

The animals had come to love the music. Even the cats. One day Nell had been playing the piano and Pauly had come through the dining-room, walking sedately with her five kittens obediently following in single file, and had laid herself down on her side under the piano bench. Her head was raised, bent over, listening, her dreaming topaz eyes half closed. The kittens nursed, their paws and claws going in and out against Pauly's soft belly, taking in the music with their mother's milk. Pauly, obviously, had considered this an important part of their training.

ALL this drifted through Rob's mind as he stood stroking the piano. He reached a finger down and pressed one of the notes, trying to hear in it the things his wife heard. At that moment there was the sound of the station wagon coming up the hill behind the house.

Rob went to the back door and threw it open.

"Howard!"

"Yes, sir—here's the mail."

"Mail! You left here at one to get the mail and now it's milking time! Where's Ken?"

"Well, Dad, he's gone up to the valley to see Thunderhead."

Rob's eyes narrowed. He kept looking at Howard without speaking. Howard continued, "You see the haying's over and soon we'll be going back to school," Howard paused checking the truth of everything he was saying, "and he was awfully keen on seeing Thunderhead again."

Rob continued to eye him as if waiting, but Howard looked down and said nothing.

"Did he see Daly?"

"Oh, sure! Yeah—he saw Daly and told him about feeding the rams up."

"Where did he eat?"

"At Tie Siding. I ran into him there when I went for the mail."

"Well then, he won't get back tonight—" It was more statement than question. Rob waited a moment.

When Howard merely shook his head, Rob's tone changed.

"Howard there's something I want you to do. You'll have to take your horse. A lot of Johnson's cattle broke through the fence up on the corner of Section Eighteen. They're up in the east corral, nine white-face cows and some calves. You drive them off our land, put them where they belong and mend the fence before you come back."

"Yes, sir," said Howard with alacrity, jumping out of the car.

Rob closed the door and walked toward his desk, his lips tightening in an expression that was half grim, half amused. He had some work to do on his accounts, but before he began, he gave a few moments of thought to Ken's behavior. Whenever Thunderhead was concerned, or that valley up in the Buckhorns, Ken was loco. If he had gone up there now, something was doing. Howard! Rob broke into a chuckle. Either Howard was circumbobulating and didn't care who knew it or he was making a bad job of it. It reminded Rob of a time when Ken, a little fellow of five, had told him a lengthy,

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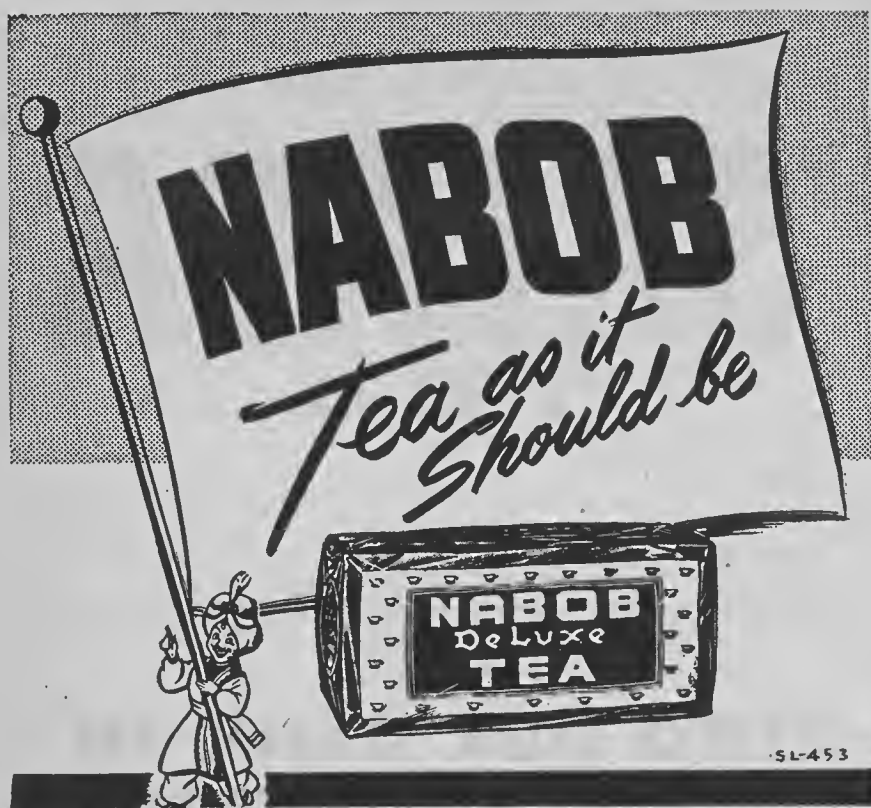


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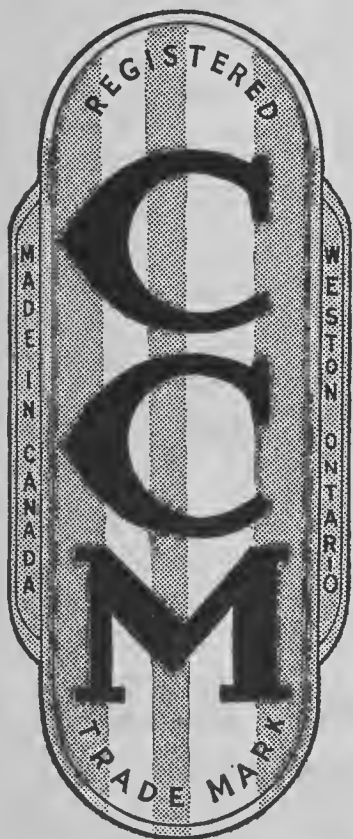


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amazing, involved, impossible lie—going on and on—taking the greatest pains about it. And Rob had suddenly cut it short with a roar. "That's a lie, isn't it?" "Yes!" Ken had howled, sobbing. "What's the use of lying to me?" "No use!"

Well, anyway, Howard was shielding Ken. Wait until the kid came back—He pulled his papers toward him.

Figures were reassuring these days. When he had put the sheep on the ranch, a couple of years ago, the worst of his troubles had ended. Now when he sat at his desk in the evenings, going over his accounts and making forecasts for the future, he could smoke his pipe in comfort, knowing that at last he was on the way to clearing off his debts. After 16 years of losing money on horses he was now making money on sheep. This meant being able to educate his children properly, employ sufficient help to train and school those horses which he intended to keep, and give Nell the comforts and luxuries he so passionately wanted her to have.

NELL'S life was quiet now, not so much riding, not so much to do with her sons and husband, nor with the ranch activities. And not so much activity in the house, either, for there was Pearl to do the housework and cooking; leaving Nell time to take care of Penny and to read and practice and to rest.

It was a great change for her, after having lived like a big sister with her growing boys for so long. Often she was surprised to find herself lonely. Penny was like a darling rose in her bosom, or like a thread of melody in her ear, but not yet a companion.

Nell suspected that part of her loneliness came from having a secret from Rob. It was something she was ashamed to tell. It was, merely, a premonition. When all was going so well with the family, with the ranch, the sheep, the baby girl they had wanted so passionately, could she be the one to cry, "It is all false! Trouble is coming!" No—of course not. Anyway, it was probably nonsense. She would get over it. But those dreams—always of disaster—

A slight shiver shook her. She was sitting in the deep chintz-covered armchair by the front window in her bedroom, one elbow on her knee, her chin in her hand, her eyes on the baby who sat on the floor playing with a red rubber ball.

The dream this morning, just at dawn, had been the worst of all—a nightmare. How real! Being strangled and unable to move, or to struggle, or do the least thing to help herself! And suddenly being awake enough to know that she was lying there in the bed, with Rob beside her, and yet the strangling and the terror and the awful presence that was beating down upon her continuing.

It had faded and she had come fully awake, panting, perspiration on her forehead, and, still the constriction in her throat and anxious not to wake Rob, but forced by her terror to do something to break the spell, she had slipped out of bed and gone through the open door into Penny's nursery.

Nell and Rob shared the large square room over the kitchen, warm in winter, facing the Green and the morning sun. The small room adjoining, Rob's dressing-room, had now been turned over to Penny and held her white-painted furniture ornamented with little clusters of forget-me-nots and pink roses and bowknots of ribbon. There was the chiffonier in which her clothes were kept, the large table holding scales, toilet articles and bath, there were her little table and tiny chairs.

Nell had gone first to the crib. In the faint light of dawn she could see the baby, lying flat on her back, head turned sideways so that her face was in profile, both arms out on the pillow,

crooked at the elbow, the closed pink hands making tiny fists.

Nell felt them. Warm and relaxed. How exquisite she was with the high color on her peachy brown cheeks, the long silken lashes, the soft dark hair. Her physical loveliness seemed a marvel to Nell, a marvel that the world was full of infants and small children as beautiful as flowers, tinted like cream and roses, with eyes the color of the blue lilies that bloomed in the meadows early in the summer.

She longed to take the baby up and hold her in her arms and so assuage the fear within herself, but at this hour of the morning, if Penny woke she was likely to stay awake.

NELL had walked restlessly around the room, fussing a little with the baby's clothes which hung on the back of a chair, with the articles on the table.

Then she had gone to the window to look out and see how near it was to sunrise and there, down on the Green, were a man and woman dancing together. It was Pearl, of course, cutting up with a most decrepit object, shirt-tail flapping outside his baggy dark trousers, rolled-up sleeves showing thin, hairy arms, a battered black felt on his head. The clothes looked empty but they capered ecstatically, keeping pace with Pearl and the brisk wind which whipped her full cotton skirts about her aged legs.

Nell watched them a long time. . . . How happy they were . . . how carefree . . . drunk? Probably. . . .

Nell sighed. For how many years had she held out against employing anyone on the ranch who was not sober—then at last given in. There just were not enough sober ones. . . . Was it because this was, really, a frontier? With frontier towns? frontier waifs and strays? At any rate, if it had to be, let it be open. It was part of the agreement with Pearl that she would not drink while on the ranch, provided she was given a jigger of whiskey when she absolutely had to have one. The demands came at any moment, whether guests were present or not. "Captain McLaughlin—"; "Oh—you-want—"; "Yes, please—" Pearl would accompany him to the liquor cabinet, receive the glass of whiskey, drink it down and glide away with a soft "Thank you."

But this caracole of marionettes in the sunrise! It looked like an infringement of the agreement. . . . Where had the man come from? Where would he go when the dance was over? Was it he who had brought the bottle? Had they been out all night?

Of course something ought to be done about it. *Heavens no!* Suppose she should leave! She was priceless—she could cook anything. No matter how many guests, the meals went quietly. Pearl never seemed to think there was much to do. The kitchen was never in wild disorder. Pearl's speech was quiet and she agreed to all that was asked of her. True—she did have a good many husbands—always talking of Bill, or Jack, or Tom.

This fatal charm—in what did it lie? She was a woman of middle age, middle height. She had a voluptuous figure. Her greenish brown hair was cut all over her head and she arranged it in a halo of loose curls. There was always a cigarette hanging from the corner of her mouth, twisting her face and causing her hazel eyes to squint. Her skirts were short and her legs bare, and she moved with a smooth, gliding gait, her feet in a pair of felt slippers.

Nell wondered if the man dancing on the lawn was Tom. Pearl had spoken that name with romantic tenderness. Romance? Ah . . . Romance between the capering scarecrow and maudlin Pearl . . . dancing on the Green in the windy dawn. . . .

Nell had returned to the other room and slipped into bed again, moving

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closer to Rob's stalwart back, laying her cheek and hand against it to draw strength and courage from him.

ALL day, the shadow of that morning nightmare had been upon her. After lunch she had rested while Penny slept, and after that had not even troubled to dress and take the baby outdoors, making the excuse to herself that it was windy and cold.

But the room was warm. Thank God for the furnace. Heat in the house, at last, day and night. It stood down there in the deep earthen cellar, black and squat, feeding steam into the radiators, carrying warmth and comfort to every room. After a score of years spent in a Wyoming country house heated only by stoves and open fires, this furnace had made so great a change in the winter-time lives of the McLaughlins that existence seemed a different thing, easier on a dozen counts.

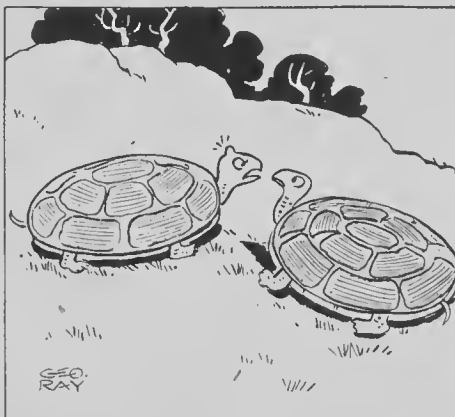
The wind was still blowing. Nell leaned her head to the window and looked out and her face went blank and detached. Meaningless, endless, pageant of wind and birds... wind and thrashing trees... wind and clouds... wind and little cones of dust and leaves that reeled across the ground...

Way down the pasture a string of cows came slowly toward the barn. Nell's eyes came to life as she watched them. The bull was following Pansy. Nell began to count the months. How long since her calf was born—and how many months from now to June?—it would be nice to have Pansy come fresh in June—just about right—She thought about the bull, Cricket, with some anxiety. Was he getting bad tempered? He roared so whenever the men went near him, when he was brought in with the herd, when he stood in the corral waiting for his feed. They were all getting used, by now, to the morning and evening concert of deep bellowing roars. She had read in the newspapers not long ago that the most dangerous wild animal in America, with more killings to his credit than mountain lion or grizzly bear put together, was the purebred dairy bull. She had told Rob about it, but he had pooh-poohed it.

ACROSS the Green, over in the long grass behind the corner of the spring house, a dark shape was lying—the black shepherd dog, the stray, who had appeared at the ranch some months before and had been there ever since. His head was lifted, pointed at Nell's window. Several times she had called to him and waved to him from that window. Now he lay there in the deep grass all day watching it, when he wasn't watching the front door for her to come out.

When the boys had first found him he was cowering under one of the hay wagons and no amount of coaxing or bribing had moved him to come out.

They had decided that there was something the matter with the dog, he was a psychopathic case. What had made him so? Some cruel mistreatment? Was he a sheep dog who had failed in his duty and been punished so



"Just as I was coming out of my shell,
I sneezed!"



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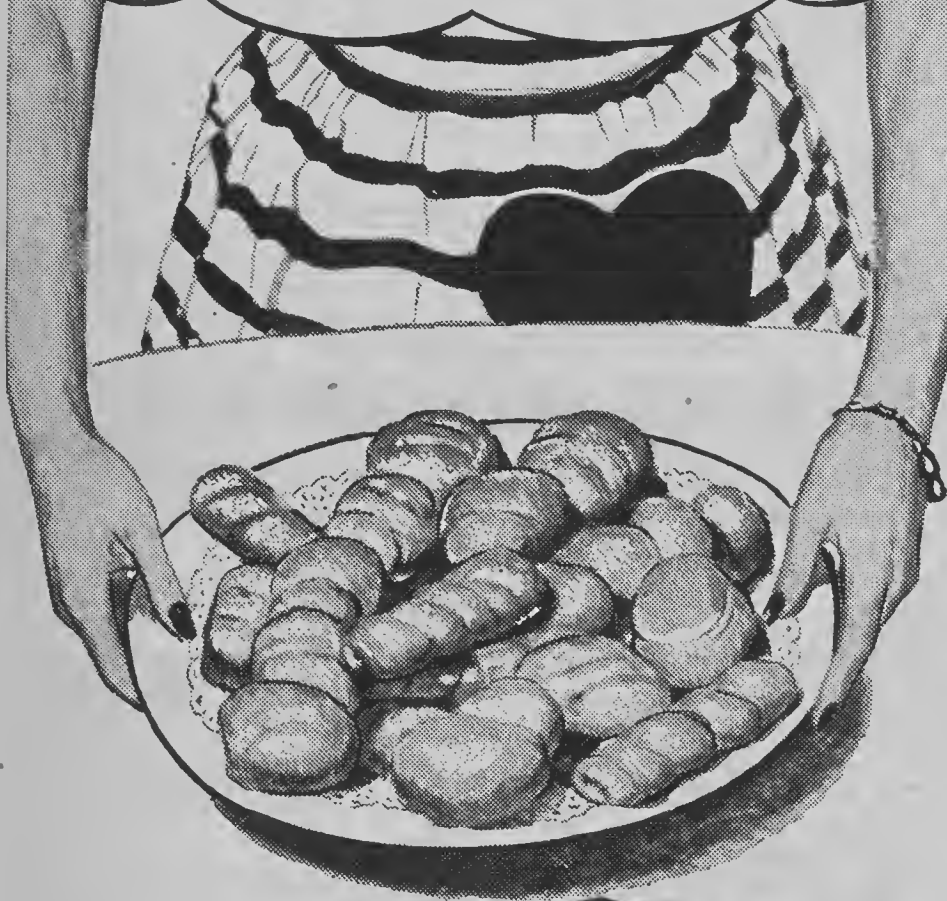


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that he would never forget it? Whatever it was, he had lost courage and faith. “He's cut his ties with man,” said Rob, “he'll be a wanderer all his life.” Nell had thought of the old hymn, remembering the deep, sad voice of her grandmother singing it. “I'm a Pilgrim, and I'm a stranger, I can tarry, I can tarry but a night.”

NELL put a platter of food as far under the hay wagon as she could push it, and had called to him. “Here, Pilgrim! Here, Pilgrim! Here's some dinner for you!” But the dog had not moved, and she had gone away and forgotten him. Later that night, before she went to bed, she had remembered him again, and had gone and sat down on the grass beside the wagon and called to him to come out. He did not move. Sitting there, she had half forgotten him and had fallen into a reverie, her face raised to the stars, her hands resting on the grass beside her. “I'm a Pilgrim, and I'm a stranger! I can tarry, I can tarry but a night!” she sang softly. Suddenly she felt a warm tongue licking the back of her hand. She did not move. The dog licked and licked, becoming more courageous and more impassioned as his terror diminished. Nell slowly lifted the other hand, and laid it on his head. He crawled into her arms, she held him tight, he laid his head upon her bosom and, trembling all over, poured out his terrible story in quivering, nearly inaudible cries.

She held him a long time. When she left him, he crawled back under the hay wagon. In the morning the plate of food was empty.

Once again he had a lifework. It was very important. It was to watch over his mistress whenever she took one step, or a thousand steps. To accomplish this filled all his time. For he must lie somewhere, hidden from everyone else, yet close enough to hear all that she did in the house. Of course the sounds she made were quite different from the sounds anyone else made—the way she opened the screen with a little push and let it fall shut with a bang, not a loud bang—not heavy striding steps, but all light and quick and easy.

It was necessary for him to have an understanding with Kim and Chaps. This was accomplished, no one knew how. The dogs knew where he was, perhaps they knew his story; they did not molest him nor expect him to play with them. They understood his duties toward Nell.

Pilgrim had several hideaways in which he concealed himself, all of them enabling him to keep his eyes and ears on the house. If Nell went out, then with half a dozen great leaps he would reach her, all bows and smiles and flourishes, every tooth showing. Now and then she had to say to him, looking at him with regret but still briskly and in a matter of fact manner, “No, I'm sorry, you can't come because I'm going in the car.” At that point his tail would stop wagging and his smile would fade.

“But I'll come back,” she would add. “And I'm not going to be long. You can just wait.”

Even waiting can fill a life.

Penny's ball had disappeared under the dresser. She crawled to her mother and pulled herself up against her knee.

“Baw—Baw—” she trilled questioningly.

Nell caught he up into her arms with passion, crying, “Oh, darling! What if you are to be a baby growing up without a mother!”

Penny struggled. Nell put her down and leaned back in her chair sighing deeply. Penny gurgled a whole exciting story to the effect that she had known where the ball was all the time, as she crawled to retrieve it.

I shouldn't have said that, thought Nell. Her thick, fawn-colored hair was loose on the shoulders of her blue silk wrapper. She pushed her hands through



“Son, you don't HAVE to say ‘I do’.”

it nervously, lifting the heavy bang from her forehead. She scolded herself. What's the matter with me? *Something is*. Perhaps its physical. Perhaps it's just this fool premonition. An idea can get into you, and whether it's false or true, can make you awfully miserable. Lots of people before me have had the idea they were going to die. Nothing to moon about—but *those dreams*. It seemed to her that if only she didn't have the nightmares and the feeling of choking she could get hold of herself and be all right again.

She took from her table one of the books of mysticism and poetry which always kept her company. Just the feeling of it strengthened her. These books opened doors in the mind through which one could escape; they gave courage.

Holding it closed upon her knee, she felt better.

Presently she heard Howard's voice outside. That was Rob talking to him. She put down the book, sprang up and began to dress.

SOON after breakfast next morning Rob, mounted on Reveillé, and Howard on Jester, and Ross Buckley on Senator, were schooling their horses in the practice field below the cowbarns. These were three fine geldings, conforming to Army specifications, four years old, fifteen and a half hands high, unblemished by barbed wire or any other scars.

A large black car appeared on the road and stopped, drawing up along the rail fence of the practice field.

Rob immediately swung his horse around. Howard followed him.

Descending from the car was a tall thin man, with a genial ruddy face under a thatch of grey hair, dressed in the Westerner's compromise between town and country, the tight-fitting whipcord trousers called “Cheyenne pants,” a waist-length jacket, and wide-brimmed felt hat. He limped a little, there was an acousticon in his ear and a small microphone on the breast pocket of his jacket.

“Beaver Greenway!” yelled Rob, dismounting and going to the fence. “What brought you to this part of the world?” The two men shook hands and Rob's eyes took in the car, the English-looking fellow at the wheel with the checked cap and the look of a man who lives around horses—red face, receding chin, popeyes. Another man was getting out of the tonneau whom Rob recognized as the Cheyenne freight agent.

“Hackett!” exclaimed Rob. “Glad to see you!” Hackett advanced and shook hands.

“This is my son, Greenway, my older son—you met Ken a year ago—”

Rob motioned to Howard, who dismounted in one swift smooth step, looping the reins over his arm.

“Well,” said Greenway, “I've got a tale of woe to tell, and Hackett here suggested you might be the man to help me out.”

Howard looked interested and moved a step closer. But Rob said, "Well, Howard, you've got a morning's work on that plug—here, tie Reveillé to the fence for me, will you?"

Howard, obviously disappointed, did as he was told. Rob vaulted the fence and said to his visitors, "We can drive up to the house and be comfortable."

But Greenway had already seated himself on a boulder by the roadside. "This is all right, McLaughlin. What I've come for—well there's been a sort of accident."

The man at the wheel opened the door and emerged from the car. Dejectedly, he seated himself on the running board.

At the word "accident" Rob's eyes turned to the freight agent. "Not on the railroad, I hope? Anyone hurt?"

"Nothing as bad as that," said Greenway, "but I've lost a piece of freight."

"Oh." Rob was filling his pipe, carefully tamping the tobacco into the bowl.

Hackett braced one foot on a rock and leaned his arms on his thigh. His comfortable paunch, his cherub face, did not today convey their usual impression of affability. "I'm a worried man," he said. "McLaughlin, that piece of freight was valued at ten thousand dollars."

"Should think you *would be worried!*" Rob gaped at him. "Can't you fire someone?"

Hackett tried to grin back.

"Briefly," said Greenway, "this is what happened. A filly I had bought from the Beckwith breeding stables in England was lost off the railroad in transit. The crate in which she was travelling left the flatcar on the sharp curve this side of Red Buttes and rolled down the incline. I got to Red Buttes to meet her—no filly! No crate!"

"Flatcar!" Rob's amazed eyes turned to Hackett. "They wouldn't ship her on a flatcar—and with her crate so loosely lashed that it could swing off on a curve! The railroads don't do things like that—"

Hackett groaned, "Don't rub it in!"

GREENWAY made a disgusted gesture. "It was all my fault. I was in too much of a damned hurry to see the filly. See here, this is the way it was. She was shipped from England in charge of Collins here—" his head tilted toward the car and as Rob looked at him, the groom touched his cap. "I can vouch for him. He has been in my employ for years. I sent him to England to bring back the filly. She was coming on a through train to Foxville, Idaho, which is the nearest station on the main line to my ranch. We followed her travels, of course. I say *we* because she's a present for my little grandniece, Carey." He paused a moment. "Carey is a grand little girl, McLaughlin. She and I are great pals. She's a chip off the old block, loves anything on four legs and has ridden since she could walk."

Rob nodded but said nothing.

"I've promised her the finest filly I could find, intending to breed from her later on. I've been interested in a line of horses that are bred at the Breckwith farms in Gloucestershire. To-

gether, we picked this filly, Crown Jewel, from her pedigree and her record. So you can imagine that when she was actually en route, nothing else was talked of in our house. And I had the bright idea of coming down here to Red Buttes, which by the road is only a few hundred miles from my place in Idaho, picking the filly up in a trailer and taking her home with me, so cutting off about two days' travel for her. The railroad makes a detour, you know, in going west from Cheyenne to Idaho. Carey was simply wild to do it. I wired them at Cheyenne to put her on the Red Buttes local—it's only a short run. They put her crate on a flatcar—"

ROB glanced at Hackett who protested, "It was the only thing we had in the yards—"

Greenway continued, "I met the train yesterday morning at Red Buttes and she was gone! Crate and all!"

"Where was her groom?"

Collins shifted uneasily.

Greenway answered with a slight grin in his direction. "Just where you would suppose. In the caboose! Reciting her pedigree to the train crew!"

Collins looked at the ground—a man in misery.

Rob asked, "Wasn't the crate lashed to the flatcar?"

"It was," answered Hackett. "By a dozen boards. But the floor of the car was rotten old wood. The crate must have worked loose gradually—then the strain of that sharp swing around the curve—" he gave a sigh, removed his hat and passed his hand over his bald head.

Rob was stupefied. "I suppose you've found the body? Was she completely crushed? God!" he interrupted himself, "I hate to think of it!"

Greenway's face brightened. "Wait a minute! From here on the story gets more cheerful! She wasn't killed. She wasn't even hurt!"

"What!"

Greenway continued. "You'll think it's a piece of fiction but here's what happened. A stallion comes along, kicks the crate to pieces, runs away with the filly!"

"That doesn't seem like fiction to me," said Rob. "Hey! I've got a notion who the stallion is! I've got a big red fellow up on the Saddle Back there," he pointed with the stem of his pipe to the long indented hill above the ranch. "And he wouldn't pass up a ten-thousand-dollar filly! If he did, I'd fire him!" He laughed at his own joke. "And a crate wouldn't stop him—why, he'd kick a *house* to pieces if there was a tidbit like that inside it—" He broke off suddenly, and then said, "Greenway, do you ride?"

Indignantly Greenway answered, "I ride better than I walk or hear! I broke my ankle playing polo and lost my hearing when the Turk kicked me in the head!"

"Fine!" exclaimed Rob.

Greenway put his hand ruefully on the side of his head. "Not so fine—I wouldn't say—"

"I mean—fine that you ride. You and I are going to have a ride, and I'll show you your filly! But wait a minute. How do you know this? Are you sure?"

"A young fellow told it to the station agent at Red Buttes. He saw it himself."

"Who was he?"

"His name is Buck Daly."

"I know him. He's the son of the man who keeps my rams for me. He's a good kid and he knows horses. If he says he saw that happen, it happened. But God, man!" he stepped forward to give Greenway a slap on the back. "What luck! The damndest luck I ever heard of!" Greenway slowly stood up.

Rob continued, "The filly's not hurt! Banner kicks her free before she dies

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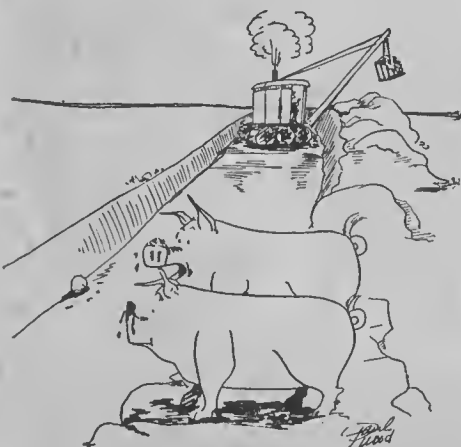
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"Holy Mackerel! You and your big nose!"

of lying on her back, and brings her here where she is safe." He pointed again to the Saddle Back. "Up there, Greenway!" His grin widened. "Though I won't promise you won't have a colt from her a year from now that you weren't looking for! Come on, let's go—"

"Wait a minute," said Greenway. "What color did you say your stallion is?"

"Red," answered Rob promptly. "He was a chestnut when he was born, very dark with a tail and mane the color of cream. You never saw such coloring. But when he matured his body got lighter and redder, and his hair darker. It's a perfect match now—red gold—wonderful!"

"But Buck Daly says the stallion he saw was white."

Rob put his pipe back in his mouth and leaned against the fence. His brows came down over his eyes.

Hackett said, "Now, of course, that's the strange thing about it—we all thought—" he hesitated.

Rob said slowly, "It's *very* strange. I've only known two white stallions in my life. One was called the Albino, a wild horse that used to roam these mountain states and steal mares wherever he could find them—he crossed some of my mares. If he was alive, he'd be the one that did this. But he isn't. He died a violent death a little over a year ago, killed by his own great-grandson—a throwback to him, a colt who was born right on this ranch out of Ken's mare, Flicka. We named him Thunderhead and he's the other white stallion I have known."

"Why couldn't it have been him, McLaughlin?" said Hackett eagerly. "He's the one we thought of right away."

"Because he isn't here any more. He's twenty miles away from here shut into a valley in the Buckhorn Mountains

with all of the mares and colts that used to belong to the Albino."

"How do you mean—shut in?" asked Greenway.

"Well, the valley is in the crater of an old volcano. It is surrounded by a rampart of volcanic stone. A fissure in this was the entrance to the valley. Ken simply blew up that pathway with dynamite and completely closed it so that Thunderhead could live in there as the Albino had—a sort of king. The natural, wild life."

"With his great-grandsire's harem," grinned Greenway. "To the winner belongs the spoils! Is that it?"

"Exactly!"

Greenway thought a moment. "Is there no other way out?"

ROB did not answer immediately, then said, "The valley is U-shaped. Down at the other end where the U is open, the wall is gone and there is an eruption of the ground in every direction covering a hundred miles or so. Ravines, mountains, gorges—he could get out there if he wanted, a long, hard way. And of course, if he left the valley, he would have taken all his brood along. A stallion never leaves his mares."

Hackett cleared his throat. "I think it was Thunderhead, McLaughlin. I think he left the valley."

"Hah! Sounds as if you know something! Let's have it!"

"My wife was down in Colorado visiting about a month ago. She heard a lot of talk about a stallion that had been raiding the ranches around there, and stealing mares. Folks thought the Albino had come to life again, because it was a white stallion."

There was a moment's silence.

"When was this?" Rob snapped.

"July—August. A dry farmer down at Glendevy, Jeff Stevens, had his two work mares stolen from him—the only

work team he had. It pretty near broke him up. Two fine Morgan mares. And over at Steamboat Springs, the man that owns the daily paper, name of Ashley Gildersleeve, he lost a fine saddle mare he had put out at pasture. And he wrote a piece in the paper and called him the 'White Raider' or something like that."

"I'll be damned," exclaimed Rob. "Thunderhead! Out of the valley! All the way through that mountain country!" He leaned forward, picked up a stick, went to the middle of the road, and in the dust began to draw a map. "Look here!" The men drew near.

"See? Here's the valley—here's all that mountainous country south of it, then here are the grazing lands that fan out from it to the south—that's way down in Colorado—then over here to Steamboat Springs, and back through Rabbit Ear Pass, up through the Red Feather country to Fox Park, and then Sherman Hill and the Buttes! A great big curve!"

Greenway straightened up. "And home again. That's natural."

Rob rubbed his chin thoughtfully. "But why would he leave that valley? And all his mares and colts?"

The men stood around in silence for a few moments. Then Greenway asked, "Where is your boy now, McLaughlin? The one who owns the white stallion?"

AS Rob turned to answer him an odd expression of surprise dawned on his face. "Strange coincidence! He's up in that valley!" His eyes turned to Howard who was painstakingly putting Jester through a series of figure eights in the middle of the field. "I'm beginning to think everyone knew about this before I did. Howard!"

Howard cantered over to the fence and dismounted.

In a few sentences Rob acquainted

Howard with the situation, and asked if Ken had known about it.

"Yes, sir. Buck told him. Buck thought it was Thunderhead. Ken went up to the valley to find out if he was there or not."

Rob turned to the others with a little shrug of his shoulders. "So that's it! We'll know for certain when Ken gets back! That's all, Howard." Howard mounted and cantered away again.

"The thing is," said Greenway, "whoever the stallion is, I want the filly back, if it's possible to find her. There would be tracks to follow. And, by the way, this boy, Buck Daly, said there was another horse near the crate—a horse he called Pete."

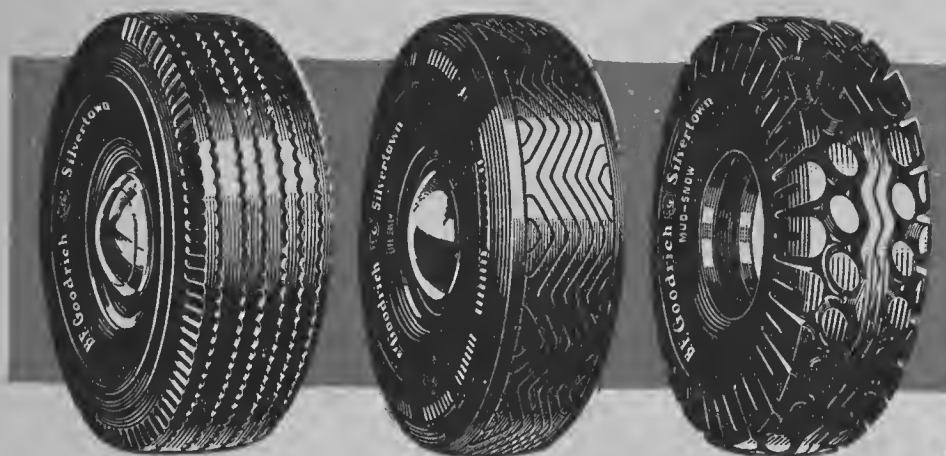
Rob nodded. "An old farm horse. Big fellow."

"Buck said Pete was with the filly before the stallion got there." Greenway laughed, "The way he put it—he said he guessed they had talked all night and become friends!"

Rob did not laugh. He said gravely, "Quite possible. Horses form those attachments. Just like human beings. I've seen it happen over and over again. I had a cow once who lost her calf. A yearling heifer that belonged to a different cow got nursing on her. We couldn't break it up. Even when she got older and stopped nursing, or almost stopped, for that's a hard habit to break them of, those two animals were inseparable. I put them in different pastures, but there was only a fence between and they would stand close together, pressed against the fence, licking each other, or the heifer with its head through the wires, nursing. So at last I separated them still further, put another pasture and two fences between them. Damned if they didn't stand against those fences, looking across the pasture at each other, belching all day long, with real tears

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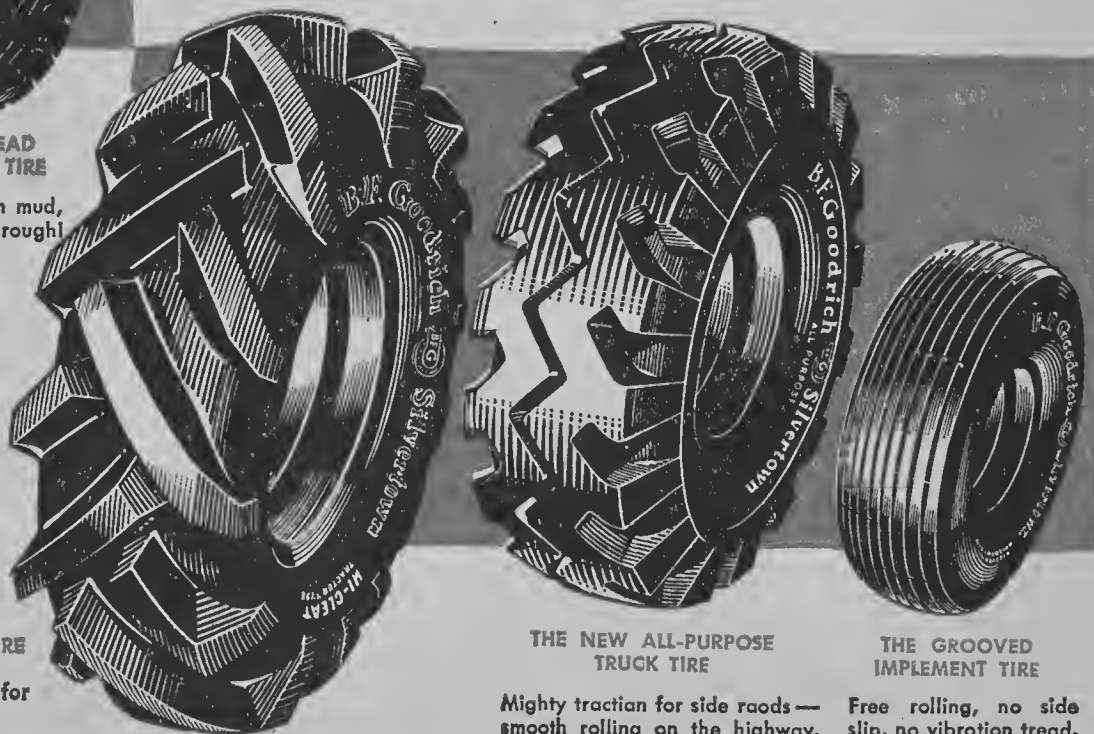
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streaming down their faces. We called them Ruth and Naomi."

"It's so human it's gruesome," said Greenway. "Perhaps, then, the filly has two suitors with her. Buck Daly said Pete—if it was Pete—followed them."

ROB puffed at his pipe for a few moments. "It ought not to be too hard to follow that trail," he said.

"That's what I came to see you about."

"I couldn't go myself," said Rob. "I'm expecting the Remount Officer, Colonel Dickenson, out this week to inspect some horses I've got ready for the Army."

Greenway made a deprecating gesture. "And of course I couldn't go on such a ride, I'm too old. I can't stand the gaff. But a bunch of young ranchers or cow-hands—I'll pay well."

Rob looked at the sky and the pace of the clouds. "Yes, I could get you

some men," he said. "The weather's threatening, but if this wind holds I don't think it'll snow. This will have to be carefully planned. If they find them, then there's the job of catching them and that won't be easy. They would either have to build a corral or drive them toward someone's ranch and corral them there."

Hackett seemed more cheerful. He straightened up and blew his nose. "You just leave it all to the Captain, Mr. Greenway. I told you he was the man to come to."

"That's settled then?" asked Greenway. "How soon can you let me know about the men?"

"I'll get right at it," said Rob. "Why don't you stay here? I can put you up."

"As a matter of fact," said Greenway hesitantly, "I am not alone. My sister, Mrs. Palmer, and my grandniece to

whom the filly belongs are at Red Buttes, waiting for news. The child was almost out of her head when the filly turned up missing."

"Where on earth did you spend the night?"

"In a terrible little dump near the station."

"Well, you must come here and stay until this matter is settled. We can easily accommodate three guests."

Collins coughed conspicuously and Rob hastily added, "And there is always room in the bunkhouse for an extra man."

"I accept with pleasure," said Greenway promptly. "And I'm very much obliged."

"You'll be over then—at what time?"

"This afternoon, I think, if that's convenient?"

"Perfectly."

As they got into the car, Rob added,

"And I think it'd be a good idea to get on that trail without losing any time. I'm going to telephone the station and have them send someone over to tell young Buck to get on his pony and see if he can follow those tracks through the Buttes. Then, if we can get the men together by tomorrow morning, we'll have gained time." He grinned at the freight agent. "Don't let it get you down, Hackett! There's always the insurance!"

Hackett leaned out the window and said, "Lucky for you the law don't hold a man responsible if his stallion rustles mares!"

Rob stood watching as the car, turning, demolished the map he had drawn in the dust and then sped away. His mind was racing. Thunderhead! Yes, probably this was his doing. He'd know soon, when Ken got back. And if it was—how about that old farmer down

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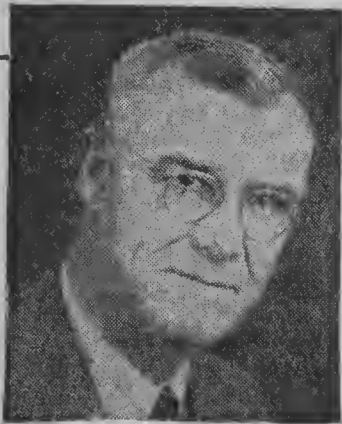
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"Clean the air and the oil" advises Professor E. A. Hardy in article on farm engine care



Professor E. A. Hardy

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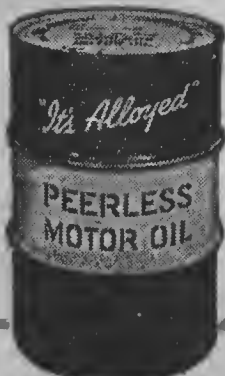
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in Glendevy—Jeff Stevens—who had lost his two work mares?

He ground his heel into the road. Yes—he'd have to lend him a work team—truck them down there. . . .

He glared at the back of the vanishing car as if it had been the culprit.

KEN was standing on the rampart of the valley, looking over it to the mountains in the south that guarded it, range after range blanketed with a fall of snow—Kyrie and the Thunderer and Epsilon and Lindbergh and Torrey Peak.

He was glad that he was alone so that no one could see that he had been crying.

There was no longer that band of beautiful horses and handsome colts in the valley. There were, instead, carcasses and bleaching bones with vultures and coyotes still busy about them. The birds were heavy and slow as if they had fed to repletion.

How many had died? All? Ken had walked the floor of the valley for hours. It was impossible to tell how many, for the bones were scattered widely. But not Thunderhead. Not even coyotes eat tails—there would have been a white tail.

It was as if, from one of those high mountain peaks, a breath of poison gas had been released to creep down the gorges and cover the floor of this valley and bring death to every living thing in it. No, not every living thing, only those that ate grass. And not poison gas but poison grass—it must have been that. Loco weed, larkspur, frozen alfalfa, some one of the murdering weeds. It wouldn't be the first time.

Ken looked at the valley with an almost bewildered expression. This had been part of his life—a kind of horse heaven. Just to think about it—and about Thunderhead reigning in it—had made him happy. He used to dream about it.

A cold wind hit him and made the tears on his face turn to ice. It filled him with such loneliness that it was like a sickness.

To look at the mountains made him more lonely, but he kept looking at them. Perhaps, if he looked long enough, they would give him the answer. . . . No. . . . They were indifferent. This meant nothing to them. At last he began to be comforted by their indifference. Time—what was it? How long had they been standing there like sentinels? Perhaps often before some pestilence had wiped life from the valley, and still the mountains stood in their places, and they didn't care, and the seasons and the years had come and gone and rains and storms and snows and sun and wind had taken

away the horror and foulness and decay, and washed it clean. This could happen again. And again, into the valley could come a beautiful tribe of horses looking for some place where they could be safe and happy. And there could be a kingdom there once more, as the Albino's had been, as Thunderhead's had been.

As he thought about this, it seemed to Ken that those great sweeps of time were rushing through him. It was as if he were struggling to reach across the death in the valley to the mountains. He wanted to stand there until he could feel strong again, as indifferent as they; and not as if he were going to burst out crying every time he thought of it. After all, Thunderhead was not there rotting in the grass, he was out! He was on the rampage! He was forming a new band! He was stealing mares!

And then it all seemed too much for Ken, and he put both hands over his face and sobbed. It was just for a second. And next he did a little clattering dance on the stone of the rampart. And then he looked up at that highest peak of all, the Thunderer, and yelled, "Hi, Thunderhead!" so loud it almost split his throat and the slow echoes wafted it back to him in the living voice of the mountain, "I Underhead!" Then he rushed back to Flicka, mounted her, and rode home as fast as he could.

SWEET, fresh-cut hay, still green from the meadows, and a boy worn out with excitement and sorrow and hope and hard riding—he dove into it head first. He rolled close under its protecting walls.

But sleep would not come immediately. The images still danced in his brain. The ride home, the pouring out of the whole story to his family, his mother's gentleness, his father's concern. And all that he had heard from them—Beaver Greenway—A ten-thousand-dollar race horse owned by a child—Guests coming to the ranch—"Go and get some sleep, Ken, you and Howard can go on the hunt for Thunderhead and the English filly."

He burrowed further into the hay, then turned on his back.

Ah, the sweet smell of it! His eyes were full of the sky. There was one bird in it, not a vulture, just a little fellow crying, "Killdeer! Killdeer!" swinging, playing with the wind, having a good time. His eyes swung with the bird. He was lifted up, he went higher and higher. At last he was up there in the clean sky . . . free . . . untroubled . . . swinging in the wind, both wings spread . . . "Killdeer! . . . Killdeer!" . . .

(To be Continued)

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"It's 'apple' — not 'applesauce' — of my eye!"

The Countrywoman

ONTARIO has had what is likely to remain the largest birthday party of a women's organization in the Dominion's history. Some 12,000 people came to the celebration of the golden anniversary of the Women's Institutes. They gathered on the lovely campus of Ontario Agricultural College on Wednesday, June 19, listened to a number of speeches, greetings from other provinces and countries from 1.30 until 3.30 in the afternoon and then dispersed for refreshments. Packaged lunches and beverages were served to 10,500 people. Many brought their own lunches. Then the vast crowd re-assembled at 5.30 p.m. to witness a pageant which unfolded the story of the Institute movement and symbolized its aims and growth during the past 50 years.

This movement, now claimed to be the largest single organization of women in Canada, was brought into being by an idea in the mind of one woman, Adelaide Hoodless of Stoney Creek, Ontario, in 1897. Fostered by a Farmers' Institute and assisted by universities and departments of agriculture, it has now over 70,000 members in the Dominion. "Built in a village, having its roots in the soil, extended to a province and to a nation" the Women's Institute idea has spread to other parts of the British Commonwealth of Nations. Stanley Baldwin, when Premier of Great Britain, referred to it, "The greatest contribution Canada ever made to the motherland is the gift of the Women's Institutes." It is linked, through the Associated Countrywomen of the World with other rural women's organizations in 30 countries.

Ontario with 33,000 members, nearly half of the Dominion's Women's Institutes' membership, made careful and generous preparations for the celebration. It was considered that 6,000 women might attend. That number was doubled. Over 400 visitors were accommodated with lodging in the college residences. Women came by private cars, buses and special trains, either on the previous evening or early Wednesday morning. By eight o'clock in the evening, tired but happy passengers were loading into the 100 special buses lined up on the driveways or making their way into Guelph to board trains for their homes. The campus was deserted.

Fortunately the day was fine, bright and sunny, with no rain to hinder the proceedings. The vast throng, gathered in front of a specially constructed outdoor stage, occupied nearly three acres of land. Benches and chairs had been provided but not sufficient to seat such a large assembly. Many stood throughout the long program. Mrs. Hugh Summers, President, Ontario Women's Institutes, presided throughout the ceremonies.

"This is a sight that those sitting on this platform will never forget," said Hon. Thomas L. Kennedy, Minister of Agriculture for Ontario, in bringing his tribute. "Many of the amenities of life which have been introduced into our farming communities are a direct result of the persistent efforts of the clear-thinking women, who down through the years have given leadership to the Women's Institute movement. Better schools, better health services, better community facilities, have been developed because there were Women's Institutes to see the need for them and work unceasingly for them."

Premier George Drew brought greetings from the province of Ontario, reminding his audience that we in Canada "are a fortunate people today. In how few places in the world could such a meeting be held, under such pleasant surroundings!" He stressed the importance of the contribution of the Women's Institutes in the past and



Some of the 12,000 farm women who attended the birthday celebration of the Women's Institutes on the grounds of the Ontario Agricultural College at Guelph, June 19.

for the future "at a time when this country is going to grow faster than it ever has grown."

"Your movement is something more than an organization. It came when the pattern of community life was being set in rural areas. It provided one of the best ways to become a good neighbor," said Mrs. Guy Skinner, formerly Miss M. McDermid, director of Ontario W.I. from 1934 to 1939. Miss Mary Clark, who succeeded her and held office until 1945, reminded the audience that the strength of the W.I. rests on the loyalty of its members. "They are the

The golden anniversary of Ontario's Women's Institutes marked by pageant and huge gathering

By AMY J. ROE

lamps to shed the light. They are thinking women who have a contribution to make." The present director, Miss Anna B. Lewis, who was appointed in 1945, spoke briefly and played a leading part in the pageant.

ONTARIO'S W.I. Golden Anniversary was well timed, in that it followed close to the meeting of the Federated Women's Institute of Canada 15th Biennial Conference in Halifax during the second week of June. Thus representatives from eight out of the nine provinces were able to attend. The Saskatchewan women, hurrying back for their Homemakers' Convention in Saskatoon sent their greetings by letter.

Commenting on the large gathering, W. R. Reek, president of Ontario Agricultural College, said "The beauty of it is, that the Women's Institutes have had

a single purpose. They went out to serve the people. They did not ask for anything for themselves. It would have been impossible for women to do what they wanted to do and did, outside of an organization. Through their organization they got hearty co-operation and much educational assistance. They have shown a remarkable development, slow but sure."

"We treasure the past—we face the future" was the theme printed in bold type on the attractive programs printed and put in the hands of those attending. It was a fitting keynote to be sounded. The outside cover of the attractive program booklet carried a message from Her Majesty Queen Elizabeth to the Federated Women's Institutes of Ontario, who wrote of her acquaintance with W.I. work in Great Britain and of having seen

members in South Africa and Rhodesia recently.

The "mother Institute" at Stoney Creek, held its own birthday party on February 19, 1947, and received 2,700 messages of congratulations and good wishes. Mrs. A. E. Walker, an Ontario past president and member of that local, brought greetings to the provincial birthday gathering. At a dinner held in the evening given by the O.A.C. to the Ontario W.I. executive, the Anniversary Committee and honored guests, a birthday cake was cut by Mrs. E. B. Thompson, charter member of the Stoney Creek local, which sent about 17 members to Guelph for this special occasion. Other testimony of the vitality of the W.I. beginning came from Mrs. Gordon Connant, daughter of Mrs. E. D. Smith, the first president of the Stoney Creek W.I., and Miss Marjorie Lee, daughter of Mr. Erland Lee, the farmer who assisted Mrs. Hoodless in calling a meeting of women to discuss the founding of the first Women's Institute in Canada.

How closely the Women's Institutes have adhered to the original ideas of the founder is shown by a study of the first statement of its aims and objects in the original constitution. The sections in parenthesis are what has been added since:

"The object of this Institute shall be to promote that knowledge of Household Science which shall lead to the improvement in household architecture, with special understanding of the economic and hygienic value of foods and fuels, and to a more scientific care (and training) of children with a view to raising the general standard of health (and morals) of our people; (and the consideration of any problem or the carrying on of any line of work, which has as its object the uplift of the home or the betterment of conditions surrounding community life)."

As a result of the efforts of the Women's Institute and the keen interest of Adelaide Hoodless, who persuaded Sir William MacDonald to make a grant of \$200,000, a college came into being. It is MacDonald Institute, a women's department of O.A.C. for purposes of instruction of young women in Domestic Science. Since that time many other provinces have established departments in their universities for the teaching of Home Economics.

Mrs. Laura Rose Stephens, who said she would be 82 on her next birthday, January 15, 1948, spoke during the afternoon, recalling how as first lecturer for W.I. in Ontario, appointed by the department of agriculture, she had travelled to other provinces. About 1910, Manitoba and British Columbia had formed Institutes.

"Let There Be Light" was the title given the historical pageant which lasted for about two hours. The script was written by Patricia Card, directed by Brownlow Card. The accompanying music was by Horace Lapp's orchestra, with microphones at strategic spots to carry the voices of the narrators, speakers and music to the vast audience.



Prominent officers of the Women's Institutes. From left to right: Mrs. S. E. Gunmow, B.C.; Mrs. Hugh Summers, F.W.I.C.; Mrs. Elton Smith, N.S.; Mrs. Cameron Dow, F.W.I.C.; Mrs. Julian Herring, P.E.I.

Instead of Soap

by Marion
R. McKee



SOAP has been short in Canada for some time. Since laundry and dishes had to be done, windows had to be cleaned, floors had to be scrubbed, Mrs. Housewife found herself looking around for something to take the place of soap. On her trips through the stores she found some new cleaners, which looked like soap and yet were not, and because these were all she could find she took them home to use. At first she was a bit doubtful about them, but as she used these new cleaners she realized that they were both thorough in their cleansing and had some advantages over soap itself. In this manner the Canadian housewife was introduced to the new "wetting agents" or what are sometimes called by men of science "Synthetic Detergents."

These wetting agents are especially suited to cleaning grease and oil from smooth, shiny surfaces such as porcelain, enamel, glass and other such things. They leave these surfaces shiny and clean, and free from all dull film. Dishes may be washed in this cleaner and rinsed with hot or warm water and then allowed to dry by themselves. There will be no streaks left on them, and they will have a sparkle which used to come only after much polishing. The greasy "ring" left on a bathtub when hard water is used, may be easily removed, or if a bath is taken with the new cleaner there will be no "ring" formed. Soapless shampoos which leave the hair shiny and clean without extra rinse are helpful to both beauty and health. Windows are quickly and easily washed without leaving any streaks or films when one of these preparations is used.

The name "wetting agent" helps to explain why these cleansers are so thorough. They have the ability to make water wetter, and so let it do the cleaning job more easily. Each drop of water has a surface which is similar to the rubber around the air in a balloon. This surface holds the drop of water together and must be weakened or re-

Because soap has been short, homemakers have discovered an efficient new cleanser called a wetting agent

moved before the water will soak out dirt and grease from clothes or articles to be cleaned. Wetting agents greatly help to do this. If you want to see how wetting agents help to clean grease from clothes and dishes and other things, try this experiment. Place a drop of water on the back of your hand which has a slight natural oily covering. The drop will sit there like a tiny globe. Now add a drop of water in which some wetting agent has been added, to your hand. It will spread out over the hand and wet a much larger space. In this way it may be seen how much wetting agents help clean greasy surfaces when they are added to water.

These cleaners may be bought in three forms: The liquid, in flake form like soap, or in beads. They are sold under a number of different trade names and are available in most stores. Each form has its own best use, and this is entirely a choice of the homemaker who is going to use it. For use as a dishwasher, the form most likely to be desired would be the flake or beads which will give a suds very much like ordinary soap. For shampoos the liquid would be used. It is up to the individual to decide the type most liked for certain jobs.

Some housewives, after trying these detergents in dishwater, have stated that they believe they are hard on the hands, and make them rough and

chapped. Possibly the trouble is that they are using too much of the wetting agent in the water. Accustomed to the suds made by soap they pour in large quantities of this cleanser, and as the suds disappear, add more. The result is a very strong solution which does tend to dry out the skin by removing the natural oils. Only a small amount of the wetting agent is needed in the water, and even though it may not be sudsy in appearance, the cleansing properties are there and the cleaning job is done as well. Less wetting agent than soap is needed in the water to give the same amount of cleansing. The use of a good hand lotion before and after doing the dishes or laundry will also help prevent chapped hands.

THE question of whether or not these new wetting agents will take the place of soap is often asked. It is unlikely they will ever replace soap, but they will be used in places where soap would be unsatisfactory. One of its best uses is in hard water which is a problem facing the homemakers on various parts of the prairies. Every housewife is familiar with the hard, greasy scum which soap forms when used in hard water. This scum is the result of the soap uniting with the salts which are in hard water and it is very difficult to remove. The new detergents may be

used with great success in hard water, and do the cleaning almost as well as in soft water, leaving no scum to be rinsed off. The advantage of this to the hard water areas of the prairies is easily seen.

Another advantage these new cleaners have over soap is their neutral reaction. Soaps are nearly always on the alkaline side, and some dyed fabrics are faded after being washed with soap. The neutral reaction of the synthetic detergent allows these delicate dyes to remain as fresh and alive in color as possible, and at the same time the garment is thoroughly cleaned.

The new cleaners help the housewife in washing rugs, upholstery and other heavy things which are not easily or conveniently rinsed properly. If soap is left in these heavy fabrics, the fibres are weakened and the whole rug may be harmed. Wetting agents may be used with safety in these circumstances for they are no more harmful than water if left in the heavy materials.

Fine woolsens, silks and most synthetic materials wash as well and sometimes better with the wetting agents as with ordinary soap. Woolsens tend to shrink less in the new agents because they may be used in lukewarm water with effective results. This is a great help to the housewives who are constantly washing sweaters and other

woolen garments. Silks and fine sheer synthetic fabrics such as nylon, may be squeezed in these new cleaners in lukewarm or cool water, and the harm to color and fabric strength due to hot water may be eliminated. Cotton, on the other hand, is cleaned better with soap as it stands hot water very well and soap has no harmful effect on the fabric.

Of special interest to rural women is the use of these new cleaners in the cleaning of the cream separators, milk pails, cans and other milk containers. Grease, fat and other such materials are quickly flushed out if a solution of a wetting agent is used in the cleaning. Milk scum is carried away by the cleaning agent leaving the utensils sweet and clean for their next job.

AT the University of Manitoba an experiment was conducted which showed the advantages of wetting agents in cleaning separators. Various cleaners were sent out to a farm woman, and she turned in a complete report of her experience with these, giving comparisons between the wetting agents and soap. Some were better than others in doing this particular job, and in some cases, using two of the wetting agents together turned out to be more satisfactory.

In her opinion, the best way to clean a cream separator is to run a solution of a good wetting agent through it. This method of cleaning saved 10 to 15 minutes a day as compared with the old soap and water method, and she found the discs did not need a separate cleansing and scouring every two or three weeks as in the old method. She also believed that the cleansing was much more thorough and dependable when wetting agents were used and because of this a higher grade of cream was available.





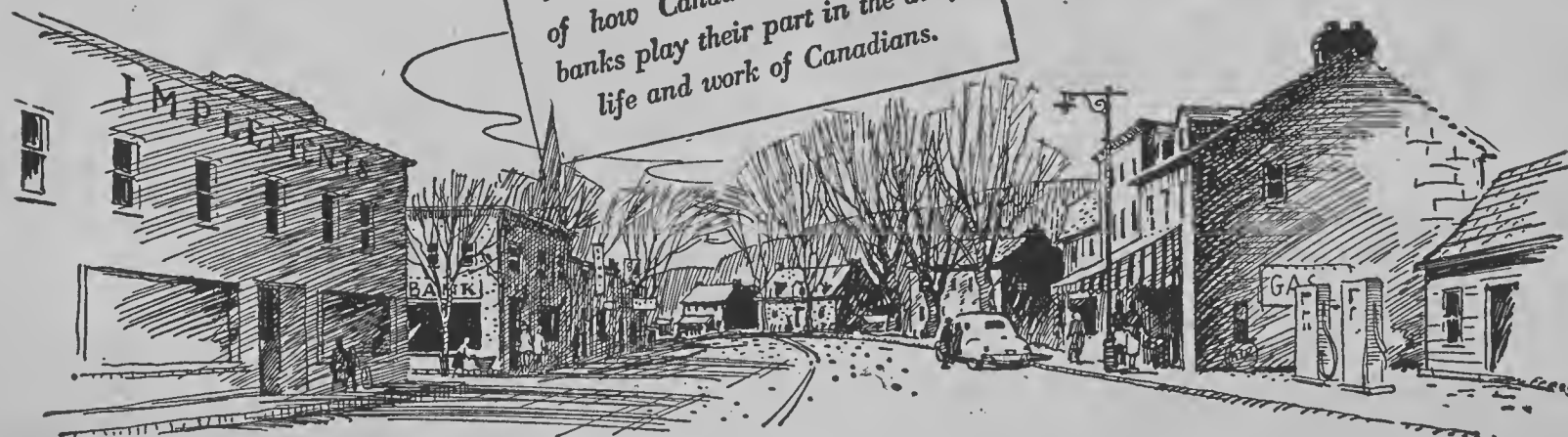
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Canning Vegetables

... plan summer canning for winter needs



Carefully check rubber rings, jars and equipment before beginning to can.

IN the summer time it is very easy to have fresh vegetables almost constantly on the table merely by going out to the garden and taking advantage of the variety offered. Your winter garden however, lies in the jars and storage rooms in your home, and requires some planning in order to have a suitable supply ready for winter use. Now is the time for homemakers to begin this important task of canning the vegetables which the summer garden offers.

Often the mistake of canning too much of one vegetable is made and during the winter the family becomes heartily tired of being served the same food too often. Often most of the available jars are used up at the first of the season for an abundant supply of early vegetables, and so there is little room for storage, or no jars left for some of the varieties of delicious vegetables which come later in the fall. The homemaker will find a food budget plan welcome, and with a little thought her canned vegetables will provide variety and valuable nutrients all winter long.

It is wise to ask yourself which varieties of vegetables the family likes the best. In this way you can plan your canning so that these will be the most plentiful throughout the winter. If the family is very fond of beans, corn and spinach, then these vegetables should be given the preference over others. However, even great favorites will become tiresome if served too often, so ask yourself how often these may appear without becoming monotonous. Include some other varieties of less liked vegetables in your canning plans, as these may be spaced throughout the more popular ones, and provide welcome variety.

The homemaker often wonders how much to can, and a few suggestions may be welcome. Food authorities say that a well balanced diet includes two or more servings of vegetables other than potatoes for each person every day. One of these may be taken from the canned vegetables on the shelves and the other from the supply of stored vegetables in the storage cellar or bin. The table shown on this page is based on this knowledge and will help provide the homemaker with an idea of how much to can for each person for these health standards.

It will be necessary to increase the amounts of canned vegetables if the amount of stored vegetables is not sufficient to supplement these during the winter. If the family likes larger servings than those allowed for in the chart, an allowance should be made for this, and more food canned for each person than is suggested.

CANNING vegetables in small amounts will greatly help the keeping qualities of the food. Filled jars, waiting to be processed should not be left around any length of time, for the warm air may quickly set up action of spoilage bacteria. Process no more than your canning equipment is able to handle at one time.

Cleanliness is essential to successful canning. All vegetables should be thoroughly washed in several waters to remove all the soil before being processed. In the soil are a great many bacteria leading to spoilage, and so all particles of earth should be removed.

Non-acid vegetables such as peas, corn, beans and practically all vegetables except tomatoes, should be hot packed into jars before they are processed. This means that they should be heated to the boiling point and while they are hot be quickly placed into heated jars. This wilts such vegetables as greens and allows more vegetable to each jar without crushing it in. The air bubbles should be gently eased out with a spoon, for the less air left in the jar the greater amount of vitamins will remain.

Processing should take place as soon after the jars have been packed as possible. The best method for processing all non-acid vegetables is by the pressure canner, as this will kill all harmful bacteria living in the food. Directions given in the booklet which comes with the canner should be carefully followed for the best results.

Vegetables may also be canned by the hot water bath method if every possible care is taken, and the vegetables are thoroughly cleaned and quickly packed and processed. This method of canning is not as safe as the pressure canner as it cannot heat the vegetables to such a high temperature. Before using any vegetables canned by the hot water bath method they should be boiled for 10 minutes before eating to kill any bacteria which might be present in the food. Any canned vegetable which shows signs of spoilage such as gas formation, color and odor changes, etc., should be thrown away without being tasted.

PRODUCTS	NUMBER OF SERVINGS A WEEK	AMOUNT TO CAN PER PERSON
Tomatoes	2 (1 c. serving)	14 quarts
Tomato Juice	4 (½ c. serving)	14 quarts
Leafy greens such as spinach and chard	1 (½ c. serving)	4 quarts
Other green vegetables such as asparagus and beans	2 (1 c. serving)	14 quarts
Other vegetables such as corn and beets	2 (1 c. serving)	14 quarts



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Dress the Salad

Different dressings improve the summer salad

AN unusual dressing may make an ordinary salad a thing to be relished and enjoyed. Too often the mistake of serving the same dressing with every salad creates a monotony of flavor which spoils the crisp freshness which salad ingredients offer. Try varying the salad dressings on your menu and see how the family delights in the tangy flavor they offer.

Buttermilk Boiled Dressing

1 T. sugar	¼ tsp. onion salt
1 T. mustard	Few grains cayenne
1 tsp. salt	pepper
¼ tsp. paprika	2 eggs
1 T. cornstarch	1 c. buttermilk
1 c. vinegar	2 T. butter

Mix together the dry ingredients in the top of a double boiler. Moisten with two tablespoons of the buttermilk. Add the eggs beaten slightly, and the remainder of the buttermilk. Stir well together and cook over hot water until it begins to thicken. Add the butter and the vinegar, a little at a time. If it curdles, beat well with a Dover egg beater several times during the cooking. This salad dressing is especially good with all kinds of vegetable and fish salads.

Cream French Dressing

4 T. salad oil	¼ tsp. pepper
2 T. vinegar	¼ tsp. paprika
½ tsp. salt	½ c. heavy cream

Put first five ingredients together in a covered jar and shake thoroughly till emulsified. Beat cream until it begins to thicken, then add very gradually the French dressing.

Roquefort Dressing

½ tsp. salt	3 T. salad oil
¼ tsp. pepper	¼ c. Roquefort
1 T. vinegar	cheese

Mix together the seasonings and vinegar and beat in the salad oil. Blend in the cheese slowly, and pour at once over salad.

Honey Salad Dressing

3 T. salad oil	1 T. lemon juice
2 T. honey	½ tsp. salt

Beat together the salad oil, honey, lemon juice and salt until well blended. Use at once.

Savory Salad Dressing

4 T. salad oil	½ T. Worcestershire
1 T. tarragon vinegar	sauce
1½ T. tomato catsup	¼ tsp. black pepper
¼ tsp. salt	Few grains cayenne
	pepper

Combine the salad oil, tarragon vinegar, tomato catsup, Worcestershire sauce, salt, black pepper and cayenne pepper. Beat well together until thoroughly cleaned and serve at once on lettuce, romaine or other salad greens.

Fruit Salad Dressing

2 eggs	4 T. sugar
½ tsp. salt	2 lemons
½ c. whipped cream	

Beat eggs until light, add salt and lemon juice and sugar. Stir over boiling water until thick, cool, fold in cream just before serving.

Spanish Salad Dressing

1 tsp. sugar	5 T. salad oil
½ tsp. salt	1 T. cold water
½ tsp. mustard	1 tsp. Worcestershire
¼ tsp. paprika	sauce
1 T. lemon juice	1 T. tomato catsup

Mix together in a bowl, the sugar, salt, mustard, paprika, lemon juice, cold water, Worcestershire sauce, tomato catsup and salad oil. Beat thoroughly with an egg beater or fork. Serve on any plain salad as lettuce, endive, romaine, etc.

Russian Dressing

1½ T. lemon juice	1 T. Worcestershire
2 T. thick chili sauce	sauce
	½ c. mayonnaise

Mix the lemon juice, chili sauce and Worcestershire sauce thoroughly and add the mayonnaise.



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Jam Tarts

2 cups sifted all-purpose flour	1 egg
3 tsp. Magic Baking Powder	½ cup milk
1 tsp. salt	1 tbs. light corn syrup
4 tbs. shortening	Raspberry Jam
	Cinnamon sugar

Sift together flour, baking powder, salt. Cut in shortening with 2 knives or pastry blender. Beat egg; add milk and corn syrup; add to flour mixture, stirring only enough to make dough hold together. Knead on lightly floured board ½ minute. Roll out ½" thick; cut with biscuit cutter. Place on greased baking sheet; make deep impression in centre of each with thumb, pressing firmly. Drop raspberry jam in each hollowed out centre. Brush biscuit dough with milk; sprinkle with cinnamon sugar. Bake in 425°F. oven, 12-15 minutes. Serve immediately.





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Concerning some matters that make for happy living in a farm home

Dear Valerie:

All of us here are thrilled to know you and Bill are getting married. What does it matter if your knowledge of the farm is limited? Lots of girls that I know have made a huge success of rural life with little or no previous experience to help them.

You could hardly choose a more interesting and challenging job than homemaking. It not only demands the greatest skill and ingenuity, but its rewards are rich and lasting. How much more fun to be working for Bill and You Incorporated than to spend your life toiling in the much less personal world of business!

It always infuriates me when a person says apologetically, "I'm just a homemaker," or still worse, "I'm only a farm woman." Did you ever hear professional people exclaim, "I'm only a teacher, or a nurse, or a doctor."? Of course not! So why should a homemaker belittle a job so challenging and satisfying?

Make the Right Start

A great deal depends on the right start. Begin by establishing simple standards in your home. Put the emphasis on what you believe to be the most important things and discard anything that is not worth while. The war stripped away many frills, even from rural life. Capitalize on this if you would save strength and clear your mind of unessentials. Only by developing a simple pattern can you really enjoy life—which after all, is why you and Bill want to go into partnership.

You can start the process of simplification right now, even before you are married. Choose a few clothes of good lines and practical materials, rather than an elaborate trousseau that will require a lot of care and will soon be out of style. Go in for fabrics that are easily laundered.

Instead of huge damask tablecloths select the cheerful colored cloths and place mats that are so attractive and easy to care for. Get Bill to cement linoleum on the table-top you will be using every day. Choose simple draperies guaranteed sun-proof.

All this does not mean you should lower your standards in any way, but rather that you streamline your living so as to keep the work within bounds. As time goes along, ask yourselves periodically, "Is this worth while?" or "Can we cut out this job?" or "Shall we try a different way?" As co-manager with Bill, you will have to form policies like any other business partners. You will find it fascinating and worthy of the best brains.

Different Types of Life

The type of farming Bill goes in for affects the making of choices. If he has mechanized things pretty completely, the pattern of your living will not be quite the same as it would be on a dairy farm. A place on the open prairie differs from bush land.

Lots of women thoroughly enjoy getting out on the tractor, but before you attempt such things make sure you can stand the strain. Some women that I know are suffering from ailments directly traceable to doing heavy work on the land for which they were never fitted.

Somehow a farm doesn't seem com-

plete without a flock of chickens. You and Bill should decide early how far to go in that direction. When your children are small it may be better to buy eggs than to raise poultry. You can easily start again later on. Most women enjoy a certain amount of out-door work.

Every family needs a garden to maintain good health—vegetables for physical fitness, flowers as a mental tonic. But don't make the mistake of being too ambitious at the start. Cultivate only what can be done without over-fatigue. For flowers depend on perennials because they need little care and never fail you.

Curb that Ambition

Think twice before going in for an orchard. Home-grown fruit is grand to have—but at what price? In addition to preparing the ground and the planting, there is the perpetual war against weeds and insects, and the pruning as well. And it always seems as if the fruit must be picked and canned at the busiest moments of the year! People who wax enthusiastic about such things either have boundless energy or have a third pair of hands capable of doing this extra work.

As you go along try not to be unduly influenced by local customs. What does it matter if someone down the road finishes housecleaning early in March (and boasts about it!). She may have twice the energy as you, or may have a small house, or a couple of daughters to help her. When your children are tiny it will be impossible for you to attempt lots of things that others with no children may be justified in doing.

In the matter of hospitality, be generous without verging on the elaborate. It will be easier on you, and you will enjoy entertaining instead of dreading the work. So many rural clubs used to go in for huge "lunches" which not only made a lot of work and added expense, but often caused folks to hesitate before joining up.

I'm so glad you are marrying a man whose religious faith is the same as yours, a man who takes an active interest in the local church. No plan for living that omits religious conviction and practice can possibly be satisfying.

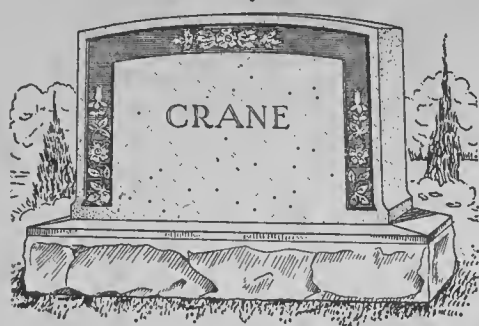
Some families have the happy knack of getting along together, of thoroughly enjoying each other's company. They usually share each other's interests and hobbies and believe in showing pleasure in things done well.

Right now you are certain to make a point of appreciating every little thing that Bill does for you. Keep this up as long as you live and you will find it the grandest morale builder. After all, why reserve nice manners for outsiders alone? Surely the home-folks who mean so much to you are worthy of the best!

Just because you love your family so dearly, it doesn't mean you can't be out of their sight. In fact you will be far more companionable and interesting if you have a short holiday away from each other occasionally. You will come back refreshed both physically and mentally and will wonder why things previously ever got on your nerves.

Experts who try to find out why marriages go on the rocks explain that it is not always the big things like poverty or dishonesty or alcohol that cause people to grow apart. Rather it's the

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gradual mounting of small aggravations which turn a woman into an irritable, nagging creature, or a man into a fault-finding grouch.

You may say that leaving the cap of the tooth paste lying around is a very small thing and certainly is not worth getting excited about. But if done day after day, it can lead to frayed tempers. Lack of good manners at table or in the use of the radio or the telephone or the car is a frequent cause of exasperation. The give-and-take of family life is a valuable check on the personal habits of each member.

Taking part in community doings is a fine thing for parents and young people. Every-day problems of the home and the farm shrink to manageable proportions when viewed against the affairs of the country as a whole. You will find that public service is merely home-making on a larger scale and this in turn will make you happier and more efficient in your own business.

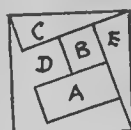
Altogether I feel sure you will never regret having taken up homemaking as a life work because it offers so many opportunities to make a real and lasting contribution to your own and Bill's happiness and to such a grand country as Canada.—AUNT SUSAN.

Household Hints

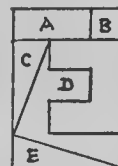
Gleaned from experience

Small holes in linoleum may be mended as follows: Melt furniture glue, then add as much ground cork as the glue will take. (Corks may be ground with the food chopper.) Fill this mixture into the hole and let dry thoroughly. This may be scrubbed over without becoming sticky and lasts as long as the linoleum itself; as well as keeping the hole from getting larger.—Miss D. B., Alta.

A burnt aluminum saucepan need not be discarded if you treat it like this: Pour some water into it and add an onion. Set it on to boil and you will soon find that all the burnt matter will loosen and rise to the top, leaving the saucepan clear and bright again.—Miss C. T., Sask.



Answers to
Puzzle
on Page 65



Summer Needlework

By ANNA DeBELLE



WHEN July comes days are longer and the rush of spring is passed. There is still plenty to do, of course, but one usually finds a few extra leisure moments this month which can profitably and happily be used for Needlework.

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Yes, if you look pale and feel overtired, your red blood cells may be too small, faded and weak to transmit full energy to every tissue of your body. Many people — women, men and children — drag through life with this Borderline Anemia.

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Summer Cooling Off Tips

Suggestions that bring refreshment and relaxation during hot weather months

By LORETTA MILLER



A sprinkling of foot powder cools and soothes tender feet.

WHETHER you're busy with your work, or just having fun this summer, it's well to slow down every now and then to cool off. You won't even mind the soaring temperature, if you remember to keep yourself cool, and you will go on with renewed vigor to the tasks at hand.

The quickest and easiest way to cool off is, of course, via the tub or shower. Don't make the mistake of plunging into a tub of icy water, or stepping under a too-cold shower. Have the water lukewarm, then gradually turn it to cooler until the water is just right. If you feel even the slightest chill, it is advisable to step out of the water at once. The chill means you can't take it, and it isn't well to force yourself to withstand the shock.

Regardless of the temperature of your bath water, dry yourself lightly in order not to stir up circulation and get yourself hot again. Then use a large puff or pad of cotton for patting talcum (so-called body or dusting powder are used in the same way and for the same cooling purpose) over your under-arms, feet and body, before slipping into fresh undies.

If you feel the need of a little extra pepping up and cooling off, treat yourself to a salt water bath. It will prove as invigorating as an ocean swim. Into a large bowl or basin of lukewarm water pour at least ½ cup of coarse salt. This is the right amount of salt for a gallon basin, but if more water is used, increase the amount of salt. Stir until the salt has dissolved. Then wring out a small bath towel in the salty solution and rub it over your body. (In wringing out the towel, be sure to leave enough of the briny moisture in to cool the body). Pat the wet towel all over your body. Let the salt water drip down your back and over your legs. It will feel soothing and refreshing. Let your skin dry naturally, without the aid of a towel.

An old favorite which is certainly a quick pick-up, is a hot water bath and a salt rub. Stand in the tub of hot water and rub either the coarse or regular kitchen salt over your body. Then sit down in the hot water for 15 minutes and relax. The salt rub and the briny bath will seem to rest the body as it cools. Dry lightly.

No matter what care is given the body, or what cooling method is used, feet take a lot of punishment during the hot weather. An invigorating salt rub, salt bath, Epsom Salts bath, or

just a sprinkling-on of foot powder or lotion will work wonders in giving tired and hot feet a fresh, cool start. For speediest results it is best to use a strong solution of either coarse salt or Epsom Salts . . . use three heaping tablespoonfuls of Epsom Salts, or salt, to each quart of water. Let the crystals dissolve, then bathe your feet in the solution for from 15 to 30 minutes. If possible, keep the foot bath warm by the frequent addition of hot water. When your feet have been bathed, dip them into a basin of cold water for a few minutes before patting them dry. If your feet have really been raising Ned, give them a firm massage with special foot ointment, or a lotion made for the purpose.

Special foot soothing preparations are available in most local drug stores and directions for using accompany each. When a lotion is used, it's well to follow with a dusting on of the powder. Also, sprinkle powder inside of summer shoes to give the feet extra cooling and soothing benefits. For feet that are generally well, but simply feel the heat, the same powder as that used after your bath will serve the purpose of cooling hot, tired feet. Or, sprinkle cologne or toilet water over freshly bathed feet. If a foot bath is not possible, a change of shoes will do wonders towards making the feet feel refreshed.

Airing the hair by brushing it makes the scalp feel cool and refreshed. Place the stiff-bristled brush near the hair line and brush upward and outward so that the hair is brushed away from the head. Part the hair in the centre and brush upward over the sides and back of the head. Then part the hair on the side and brush the hair over the top of the head upward. Finally brush the hair into position.

Over-exposing hair to the sun often fades the hair, making it light and streaked. The sun's heat also has a tendency to dry out the natural oils of the hair and scalp, and so make the hair dry, harsh to the touch, and with split or broken ends. Of course occasional hot oil treatments will replace the natural oil lost by over-exposure to the sun, but the wise beauty protects her hair. A brimmed hat, or a scarf worn turban-fashion, will protect the hair. The scarf also keeps the hair up off the neck, a point to consider in hot weather. Even a ribbon tied under the hair, around the head, while doing the housework, will prove cooling. Or a heavy hairnet worn while attending to the housework will keep the hair in place and prevent it from clinging to your neck or face.

If you can't take frequent cooling baths, it is possible to slow down and cool off. A change of lingerie does wonders, or, removing all clothing, sprinkling either powder or cologne over the body, foot powder over the feet, fresh hosiery and a generous patting on of cologne or toilet water over shoulders, chest and back and you'll be ready to tackle the hottest job . . . or to enjoy your leisure.

A very hot nail will not split plaster when driven in.—Miss A. G. L., Man.

* * *

To clean kalsomine walls, wash off with a kalsomine brush and clean water. Brush the water on with an up and down stroke as though kalsomining, making the wall fairly wet. Clean the brush often in the water, and change water frequently. When dry it should look quite clean. We have kalsomined our house once and washed it four times and it still looks like new.—Miss K. M., Sask.

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For the reader desiring the address of a needlecraft magazine, Mrs. L. K. L., Minnesota, writes: "I'm sure the needlework lover would like Aunt Ellen's WORKBASKET."

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Address _____
Town _____ Zone _____ State _____

July Styles

2205
SIZES
2-8



No. 2205—Little girl's dress featuring buttons down the side. Cut in sizes 2, 4, 6 and 8 years. Size 4 requires 1 1/4 yards 35-inch fabric, 1 1/2 yards ric rac. Applique is included.

No. 2206—A dainty dress to delight a little girl. Cut in sizes 2, 4, 6 and 8 years. Size 4 requires 2 1/2 yards 35-inch fabric, 4 3/4 yards ric rac.

No. 2159—A slim little summer suit, ideal for hot weather. Cut in sizes 12, 14, 16, 18 and 20 years, 36, 38, 40, 42, 44, 46 and 48 inches bust. Size 36 requires 3 3/4 yards 35-inch fabric with 2 1/2 yards ruffling.

No. 2166—Up-to-date bolero suit with an attractive blouse. Cut in sizes 10, 12, 14, 16, 18 and 20 years. Size 16 requires 3 1/4 yards 39-inch fabric for bolero and skirt; 1 1/4 yards 35-inch fabric for the blouse.

No. 2215—A dress-up dress for the youthful Miss. Cut in sizes 9, 11, 13, 15, 17 and 19. Size 15 requires 3 1/2 yards 35-inch fabric.



2159
SIZES
2-48

Be sure to state correct size and number of pattern wanted.

Patterns
20 cents each.

Write name and address clearly.

Address orders to The Country Guide Patterns,
Winnipeg.

No. 2167—Princess lines are combined with scallops in this cool dress. Cut in sizes 12, 14, 16, 18 and 20 years; 36, 38, 40 and 42 inches bust. Size 36 requires 4 1/2 yards 35-inch fabric.

No. 2763—Pretty washable for the house. Cut in sizes 12, 14, 16, 18 and 20 years, 36, 38, 40, 42, 44 and 46 inches bust. Size 36 requires 3 3/4 yards 35-inch fabric.

Send 20 cents for Spring and Summer magazine which includes a complete sewing guide. Illustrated in color, presenting many pages of charming pattern designs for all ages and occasions.



2215
SIZES
9-19



2167
SIZES
12-42



2763
SIZES
12-46

Save
Time

Save
Fuel

Use
Heinz
Soups

You can save precious time, selecting and preparing vegetables, when you cook with Heinz Soups. And because they're pre-cooked they save you fuel, too. Simply open a tin of Heinz Vegetable Soup and you have a wide variety of garden-fresh vegetables ready to use. Try these recipes soon!

SHEPHERD'S PIE

Saute 3 tablespoons diced onion and 3 tablespoons diced green pepper in 2 tablespoons mild flavoured dripping or butter until tender. Add 1/2 pound raw ground beef or 1 cup cooked ground beef, and brown. If raw meat is used, cook thoroughly. Sprinkle with 1/4 teaspoon salt. Add 1, 10-ounce can Heinz Condensed Vegetable Soup, undiluted, and simmer, uncovered, for 5 minutes, stirring occasionally. Place in baking dish and top with 1 cup mashed potatoes. Bake in a hot oven (400°F.) for 20 minutes or until potatoes are well browned. Serves 4.

BEEF STEW

Saute 1 small onion, diced, and 2 tablespoons diced green pepper, in 2 tablespoons fat. Add 1/2 pound raw beef, diced, or 1 cup diced left-over meat, and brown, cooking thoroughly if raw meat is used. Add 1, 10-ounce can Heinz Condensed Vegetable Soup, 1 cup water, 1/2 teaspoon salt and dash of cayenne pepper and simmer until thoroughly heated. Serve as stew or as a sauce over toast triangles. Serves 3.



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CANADIAN NATIONAL CARBON
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RF147

IS A HORSE FAMINE COMING?

Continued from page 6

anticipate optimum power requirements for field work, those on the bigger farms and those in the prairie areas envisioned the greatest degree of mechanization.

FARMS in the study were classified according to the number of acres under cultivation. Of the farmers with less than 100 acres cultivated, 16.1 per cent would operate their fields with tractors alone, 9.7 per cent with horses alone and 74.2 per cent with a combination. As the size of farms increased, there was a consistent increase in the percentage of would-be tractor farmers and a corresponding decrease in both horse farmers and combination farmers. In that group, where the cultivated acreage exceeded 600 acres, 68.4 per cent anticipated tractors alone for field power, nobody supported horses alone, and 31.6 per cent voted for a combination.

In so far as soil texture and topography are concerned, there promises to be more interest in tractors and correspondingly less in horses, when the soil draught is greater or the field work heavier. That, of course, is precisely as one might expect it to be.

The survey showed an almost total indifference to horse breeding at the present time. It is known that stallion enrollment in 1946 struck a new low point. In Manitoba the number of stallions enrolled at the end of the fiscal year, April 30, 1946, was 228 as compared with 319 in 1945 and 405 in 1944. Saskatchewan, which had over 1,200 stallions enrolled for public service in 1925, had only 152 in 1945.

On many of the farms in the study, the last foal was born prior to 1941. In the two years, 1945 and 1946, a total of 32 foals were born, representing 3.3 per cent in relation to the total number of horses. Mares bred for 1947 foaling numbered 37 out of a horse population on the farms under review of 1,021. If 50 per cent of the mares bred raise foals in this year of 1947, the offspring will represent 3.6 replacements per 100 horses.

The survey was quite enlightening so far as type of horse was concerned. This was the question: "In view of changes in Manitoba agriculture, what weight and type of horses are considered most appropriate for the work to be done by them?" Two farm operators

supported heavy draught type and specified animals of 1,800 pounds and 1,700 pounds, respectively. A few would vote for 1,500 to 1,600-pound horses, but all others described a horse of general purpose type; the most typical weight, running with surprising uniformity through the reports, was 1,400 pounds.

Among the questions was one concerning the saddle horse: "Will a saddle horse be required on the farm?" The numbers wanting a saddler were higher than might have been anticipated. Of the total number replying, 58 per cent said "Yes." The number requiring a saddle horse was greater in the transition and park areas than on the prairies, and greater on the small farms than on the larger ones.

IT is increasingly clear that many old ideas about horses in farm economy, type and other factors, may have to be scrapped. The horse is assuming a new role in the drama of agriculture, not the leading part it once played but, nevertheless, an important minor part. From the survey, it appears that quite a few of the strictly prairie farms may become horseless, certainly horseless as far as field work is concerned. But, in the other areas, the great majority say they will require horses, two or more per farm. Altogether, 59.3 per cent of those answering the questions indicated their need of some work horses for field purposes, either with or without tractor power. Eight out of the 202 farms reporting are presently without horses and, in the case of nine others, complete mechanization is planned. That means that the balance, or 185, have and mean to have horses.

Certainly there will be need for a limited number of draught horses of the kind featured in show rings. There will be a place, especially in mixed farming areas and on small farms for more, relatively, of handyweight or middle-weight horses. And there will be a place for a fairly substantial number of saddle horses to do the jobs in handling stock.

With indifferent interest in horse breeding and guarantee of higher death rate in a population composed predominantly of aged horses, it will not take long for the present surplus to disappear. If horse breeding does not revive shortly, we may discover rather soon that the horse needs exceed the supply and then it will take four years more to breed a new generation and raise it to the three-year-old stage, when harness work normally begins. It is reasonably clear that there will continue to be a substantial job for horses on Canadian farms and there could be a horse famine about four years hence.



A corner of the grounds, West of Scotland Agricultural College, Glasgow.

EVEREADY
TRADE-MARKS
MINI-MAX
A-B RADIO BATTERY PACK

The Country Boy and Girl

A Riddle de Diddle

By AUDREY MCKIM

How soon can you guess what it is?

1. It makes its home partly above the water and partly below; the bedroom has a passage leading into the water below.
2. It has two coats—an outer coat of long coarse hairs, and an under coat of fine thick hair.
3. Its rudder-like tail is bare of fur and is covered with scales.
4. It has webbed hind feet for swimming.
5. It washes its food before it eats it.

Answer: muskrat

Betty Blue's Holiday Shoe

By MARY E. GRANNAN

THERE was great excitement in Mother Goose Land. Poor Betty Blue had lost her holiday shoe. It was red. It had buckles of gold and it had been sent to her by Bobby Shaftoe. Bobby had been gone a long time now. Whenever anyone asked Betty Blue about Bobby Shaftoe, she'd say "Bobby Shaftoe's gone to sea, with silver buckles on his knee. He's coming back to marry me . . . Bonnie Bobby Shaftoe."

And now he was coming back, and he expected Betty Blue to be all dressed up in the red slippers he had sent her. They were to be her wedding slippers, and now one of them was gone.

"But Betty Blue," said Little Bo Peep, "you must remember where you put your red shoes."

"Of course I remember where I put them," sobbed Betty Blue. "I put them in the shoe bag on the wall in my closet. One of them is still there. The other one is gone."

"Maybe a mouse took it," giggled Simple Simon. "Maybe a mouse took it."

"Oh, go see a pieman, Simple Simon," said Mistress Mary.

"I'm not hungry," giggled Simon.

"Then go away somewhere," said Bo Peep. "We've got to find Betty Blue's shoe. Bobby Shaftoe's ship will be in this afternoon and he expects her to be at the dock to meet him in her red shoes."

Simple Simon giggled again. "I know who else is going to the ship to meet Bobby Shaftoe . . . I know who else is going. She doesn't know Betty Blue is going because she told me she was the only one who would be there to meet Bobby Shaftoe. She must be wrong, eh?" and Simple Simon giggled some more.

Mistress Mary looked at Bo Peep, and Bo Peep looked at Betty Blue. There was something mysterious going on here, and poor Simple Simon was too simple to know it. But he knew that someone was going to the docks to meet Bobby Shaftoe. Like as not that someone was the same someone who had stolen Betty Blue's shoe.

They all began to ask questions at once. "Who is going to the dock to meet Bobby Shaftoe? Why does she say she's the only one going? Why is she going anyway when Bobby Shaftoe is going to marry Betty Blue?"

"She says that she's going to marry him," giggled Simple Simon. "That's what the little-girl-who-has-the little-curl says, anyway."

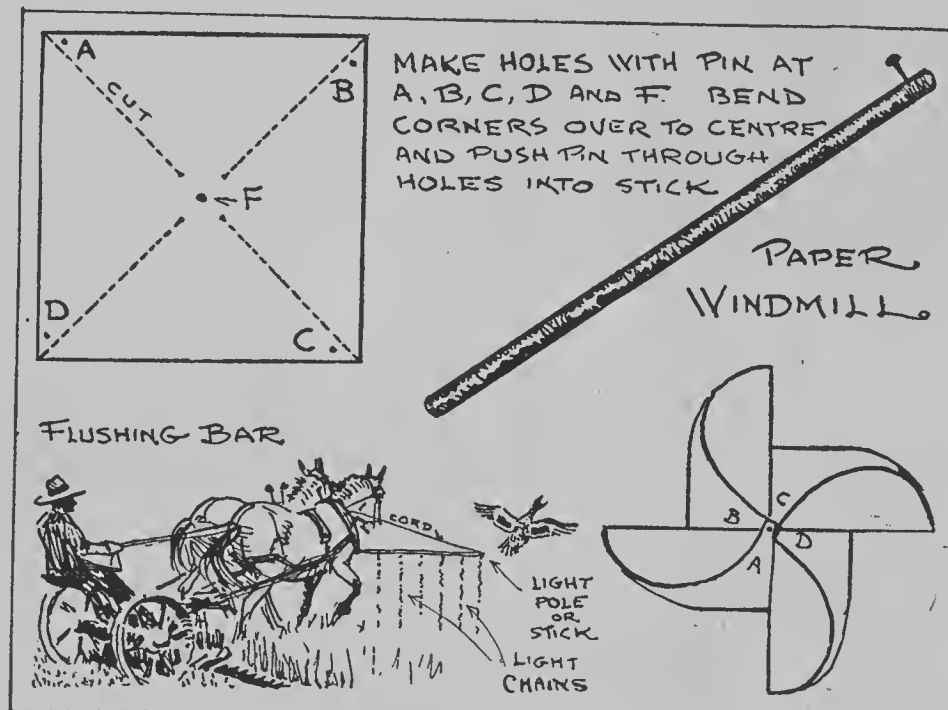
The little girl who had the little curl right in the middle of her forehead . . . when she was good she was very

During this lovely month of July your many plans come to the fore and keep you busy from dawn to dark. You are especially interested in the pig or calf you are feeding for your club show, hoping that yours will be the champion. Barefooted, you run around toughening up your feet and getting a thistle once in awhile. Hens are laying away in the bush and you must find out their hiding places. At last it's haying time and that is the best fun of all! When it rains, how nice to lie up in the hay loft and listen to the sound of the rain on the roof.

Do you want to help your friends the birds who have made nests in the hay meadow and whose lives are in danger from the mower knife? Every year a great number of prairie chickens, ducks and other birds, are killed on their nests in the hay field because they sit still and quiet when the mower comes near, rather than desert the precious eggs. You can help by asking your father to attach a light pole to the neck yoke extending sideways as far as the mower cuts (the sketch will help you explain to him what is needed). To this pole fasten several light chains or ropes which will dangle and flush the birds off their nests before the mower knife reaches them. The birds will repay you for your simple, kindly act by destroying the insects which trouble your crops and gardens.

The paper windmill we have drawn for you is best made from thin cardboard or heavy wrapping paper. Use a sheet about seven inches square. Cut with scissors on the diagonal lines nearly to the centre. Turn the corners, A, B, C, D, over to the centre, but do not crease, then fasten them all together with a pin. Use a tack to fasten the windmill to a wooden stick.

Ann Sankey



very good, and when she was bad she was horrid! She was having a horrid day today. She had taken that red shoe. Mistress Mary, Bo Peep and Betty Blue all raced to the Little Girl's house. She looked at them angrily when they arrived. "What are you doing here?" she said.

"Little Girl," said Betty Blue, "I think you took my red shoe. I think you are jealous because Bobby Shaftoe's coming home from sea with silver buckles on his knee to marry me."

"Well if you want to know it, I am jealous. And I stole your red shoe just so's you could not go to the dock to meet him."

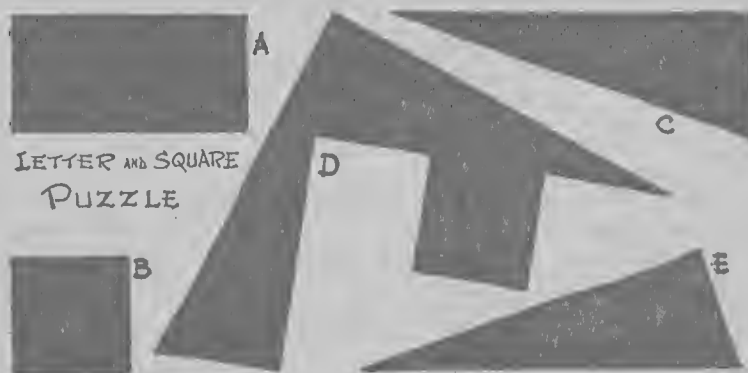
The Little Girl tossed her head saucily.

"But," said Little Bo Peep, "that wouldn't make any difference to Bobby Shaftoe. He loves Betty Blue because she is kind and sweet. He would never like you when you are so horrid."

Little Girl hung her head. "You're right. I'm sorry. After this I will try to be very very good instead of horrid. Betty Blue, I'll give you back your red shoe. How did you find out I had it?"

"We didn't. But Simple Simon told us that you were going to the dock to meet Bobby," said Betty Blue.

"Oh that Simple Simon," laughed the Little Girl. "He isn't so simple. Next time I'm horrid I'll . . . I'll . . ." Her face flushed. "I'm not going to be horrid ever again," she said. "It's more fun to be good."



Two Puzzles In One

HERE are two puzzles in one. Try them out yourself; then when you have mastered them you can test your friends' skill. Trace the above shapes

on heavy cardboard and cut them out. Now try to assemble these five pieces so that they form the capital letter "E." The second puzzle is to fit these same pieces into a square. Were you successful? Answers on page 61.—A. T.

Are You A Party Live-wire?

WE all like to be popular at the party; to be hailed with smiles of joy and to be considered an important part of the evening's fun.

Fortunately, it isn't difficult to become a party pep leader. It is simply a matter of taking stock of ourselves and observing a few simple rules.

The following test has been devised to assist you in discovering how you are rated as a party joy-peddler. Each question is divided into two parts. To score, you must check off which part most closely describes your usual behavior in that particular situation. To get your true rating you must answer the questions honestly before reading the scoring instructions. Start now.

1. When invited out, do you (a) Dress the way that gives you the least trouble. (b) Wear the swellest outfit you have?

2. When you arrive at the party do you (a) Hold back and await developments. (b) Mix with the rest and meet all you can?

3. Do you interest yourself in (a) Only those you know well. (b) All those present?

4. When meeting your old friends do you start the conversation by (a) Talking about yourself. (b) Inquiring about your friend's work, folks, hobbies, etc.?

5. When introduced to a new-comer do you (a) Try to make a good impression with some smart talk. (b) Let the other person see that he has impressed you?

6. If someone makes a mistake such as mispronouncing a word, or if he appears embarrassed by being in an awkward situation do you (a) Try to start a laugh. (b) Endeavor to cover the matter up?

7. Do you wonder (a) What you could best do to make your friends enjoy themselves. (b) What the others will do to give you a good time?

8. If the party seems to be getting a bit dull and slow do you (a) Get up and try to start something. (b) Sit mum without complaining, and seize the first opportunity to leave early?

9. Do you usually (a) Try to help out the timid souls. (b) Move along quickly with the live-wires?

10. Do you (a) Volunteer to help out with any work that has to be done. (b) Hang back and let others get the lunch ready, move the furniture, and so on?

11. After a rather slow party do you (a) Accept some of the blame yourself. (b) Criticize those in charge?

12. At going home time do you (a) Thank those who have been responsible for giving the party. (b) Feel that nothing remains but to go home?

Now that you have answered the 12 questions you should total up your score by giving yourself 10 points for each (b) part checked off in questions 1 to 6, and 10 points for each (a) part checked off in questions 7 to 12.

As you will see, 120 is tops. Very few people can make this score but those who can are real riots of fun and enthusiasm. From 90 to 110 is very good. Such a score indicates you are quite an asset to any party. You are friendly, sincere, and popular. A score ranging from 60 to 80 is average but below that you would do well to check up at once on your weak points and aim to improve your party personality quotient.

It is really surprising how much you can use the party gathering to develop and improve your sociability. The best game of all is seeing how much you can add to the evening's fun.

Get going and give your personality a chance!—WALTER KING.

Ad. Index

Apart from giving Guide readers a ready reference to items advertised in this issue, the coupon below may be used to order literature, samples, etc., offered our readers, by our advertisers. Advertisers offering literature, samples, etc., are numbered at the left and these numbers should be used in the coupon. Where stamps, labels, etc., are required an "X" appears alongside the number. The ad. itself will tell you what to send.

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THE COUNTRY GUIDE, July, 1947
Winnipeg, Man.

From the items numbered I have selected the following in which I am interested in the literature, etc., offered.

Name

P.O.

Prov.

Numbers

Please print plainly.

Between Ourselves



Ten combines at work in one field on the Alberta farm of the Heryfords.

HERE is a story in the best western tradition, sent us by Irene Heryford, Makepiece, Alta., to go with the picture above.

"Only a year and a half ago we were a complete family, father, mother, invalid uncle, and six children, three boys and three girls. A year ago my eldest brother was killed, and later we lost father. This left mother and I and three younger school children, the oldest girl being married. We had our farm work done by hired outfits and harvesting was to be started in the week following that ever-remembered Sunday, September 15, 1946.

"At 9.15 we were sitting around the breakfast table when cars started driving into our yard. They were followed by tractors and combines, trucks and more cars. In less than an hour there were 17 combines going around the field. The women who came with their men had dinner and supper all arranged, roast and fried chicken, mashed potatoes and brown gravy, corn on the cob, buns, sliced tomatoes, 17 pies and six cakes, and tea and coffee; 126 plates were served at noon and nearly as many at supper. All afternoon trucks hauled wheat to the elevator and stored some in the bins. At 5.15 they had combined 450 acres.

"Our deep appreciation and sincere thanks could not be expressed, but everyone knew what it meant to us. I am proud to write this article for The Guide."

"THE June issue of The Guide contained an article on Poison Ivy which was good and instructive," says Fred J. Blackie, Kakabeka Falls, Ont., "but I believe that her (Miss Gilbert's) assertion that there is no known cure after the rash has developed is incorrect. I have known cases where relief and cure were quickly effected by the application of a solution of common baking soda." If some public-spirited reader will go out on his own responsibility and test the efficacy of this cure, The Guide will be pleased to publish his confirmation or otherwise.

NOW we know why authors are so reluctant to write humorous articles. Somebody is going to take them seriously and have a pot shot at them. Wm. Adams, now retired near Saanich, B.C., isn't going to let Mr. Gallenkamp get away with the article "Cows Can Be Ornerly," in the June Guide. Dairy farming isn't a thing to be taken frivolously in his opinion. "Mr. Gallenkamp," says he, "ought to stick to his milk and cream in the bottle, as he evidently does not know how to handle cows. In the first place, bringing the cows home to milk is easy. They will come home of themselves if they know

there is something in the feed box for them. As to cows switching their tails, I wonder if he has ever tried an old bicycle tire placed over the cow's hips and dropped over their tails. The only time I found cows ornery was in fly time, and I overcame that with spraying. I had to give up my cows on account of my age but I sure miss them with milk at 15 cents a quart and 58 cents a pound for butter." The important thing is that by two entirely different experiences, both Mr. Gallenkamp and Mr. Adams came to the same conclusion about the place for the cow on the farm.

IT would have been convenient to have a dairy expert like Mr. Adams in the office this week to settle the sharp debate we had over the picture which appears on page 38. The boys in the composing room insist that the animal shown in the foreground is not a cow. Placing our reputation in the hands of Henri Jeanmaire, who ought to know, we are going to take a chance. Maybe it is one of those French cows used as a draft animal; one of the million French cows not classed as milking stock. Because those comps have been successful in eradicating type lice from their cases, they need not assume knowledge of larger classes of animals.

A LETTER from J. H., a Scot at Truax, Sask., who spends four cents to set us right on another matter, has left us right in the centre of utter confusion. According to J. H. we published a picture of a woodpecker with two right feet. He has procured for us a woodpecker's left foot, so that we can put the left foot in the right place, or if you prefer, put the right foot in the place that is left. We want J. H. to know that first, we do not recall publishing the picture of which we are accused; and second, if Virgil Parch, a reigning celebrity in American art circles, can draw cartoons showing two eyes, one above the other, on the same side of a profile drawing of a human, surely we can enjoy the licence of two right feet on a woodpecker. If the matter can be left at that it is all right with us.

WE hasten to square ourselves with the R.C.M.P. over the article on page 15 relating to portable stills. We have no interest in the distribution of these contrivances, nor can we direct any enterprising readers to a source of supply, not even if the product is to be used, as the article suggests, for an internal combustion engine. Better than two gallons of alcohol from a bushel of grain! It seems too good to be true. If—But we are going to stick to the resolution herein expressed.

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22. **Hardy Fruits**, by G. F. Chipman—25 cents postpaid.
23. **Farm Workshop Guide**, edited by R. D. Colquette—Illustrations and instructions for gadgets, and practical farm plans—50 cents postpaid (or Free with a \$1.00-for-2-year subscription).
50. **The Countrywoman Handbook**, Book No. 1—Kitchen Labor Savers, Home Decorating, Pattern Reading, Getting Rid of Flies, Bugs, and Beetles, etc., etc.—25c postpaid.
52. **The Countrywoman Handbook**, Book No. 3—Nutrition (foods necessary for proper quantities of vitamins, calories, minerals, etc.), Canning Meats and Vegetables, Curing Meats, Drying Vegetables, Storing Vegetables, etc., etc.—25c.
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